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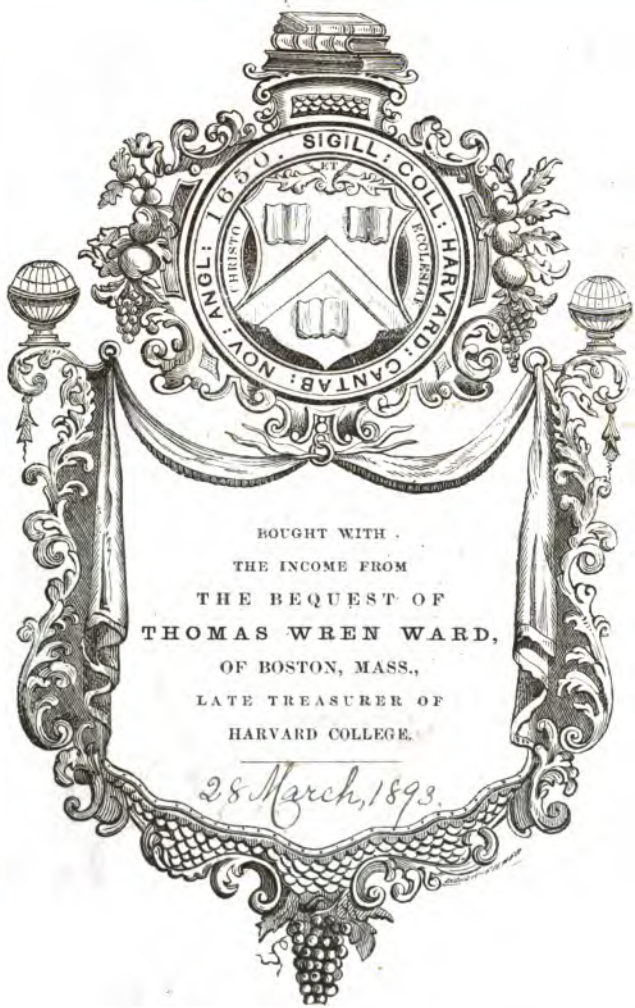
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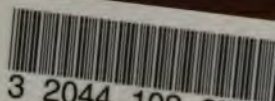


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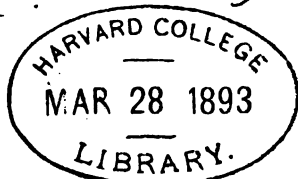
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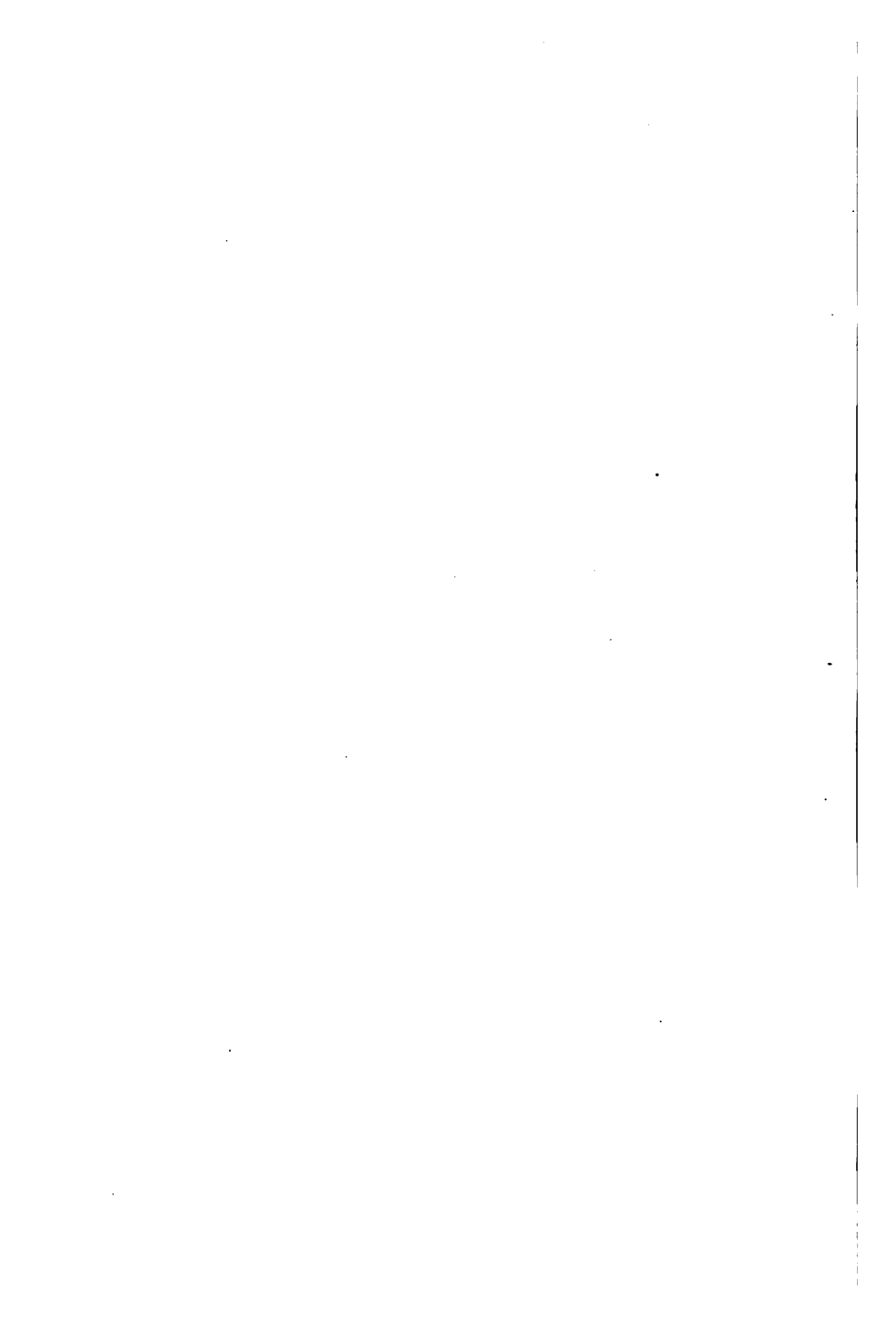
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THE following are some of the leading features of this popular School-book :—(1) *Its clear and scientific arrangement.* In this work there is no arbitrary division between Physical and Political Geography. The two are most intimately connected, and it is indisputable that the geography of any part of the earth may be best studied by combining them as much as possible, and carefully noticing the connection between them. The divisions of the subject-matter in the present work are throughout based on this principle. (2) *Its comprehensiveness and completeness.* Being designed for the use of the more advanced pupils and students, it was absolutely necessary that the work should be at once *comprehensive* and *complete*. Special care has therefore been taken to include not only the general facts of the science, but also every *essential* detail. (3) *Its thorough revision and extension.* An examination of the work will show that the information throughout is of the latest and most reliable character, and that much additional matter has been inserted. (4) *The valuable sets of Examination Questions* appended to each section, and designed for written or oral examinations. Teachers will doubtless regard these Questions as one of the most important features of the work. (5) *Its systematic arrangement of type*—thus affording material aid in its study. The more important facts are printed in large type—less important but still essential detail in smaller type—while further information, statistical, etymological, historical, and explanatory, is given in the footnotes. And, lastly, a complete *Index* of all the places described or mentioned in the book.



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# CLASS-BOOK

OF

# MODERN GEOGRAPHY.

---

## INTRODUCTION.

**GEOGRAPHY** (Gr. *ge*, "the earth," and *grapho*, "I describe") is a description of the earth.

In other words, Geography describes the earth not only as a whole, but also the lands and seas which constitute its surface, with their respective climates, productions, and inhabitants.

Such a description involves—

1. An account of the earth as a whole, its figure, magnitude, and motions.
2. An account of the natural features of the earth's surface, and of the climates, minerals, plants, and animals which belong to the different regions of the globe.
3. A description of the several countries into which the earth is divided, with the condition and pursuits of their inhabitants, and the localities of the principal towns in each.

The *first* of these three divisions is generally called **Mathematical or Astronomical Geography**, the *second* is distinguished as **Physical Geography**, and the *third* is known as **Political and Commercial Geography**.

1. **Mathematical Geography** is virtually included in the science of astronomy, and is here treated of only in so far as it relates to the figure, magnitude, and motions of the earth, and the determination of the various imaginary "points" and "circles," which are absolutely necessary in order to determine the *exact positions* of places.

2. **Physical Geography** treats of the *natural* features of the earth, its different climates, productions, and capabilities, and is chiefly valuable as the natural introduction to

3. **Political and Commercial Geography**, which treats of the *political* divisions of the earth, and the condition and *industrial* pursuits of mankind.

The two latter are thus intimately connected, and the geography of any part of the earth may be most profitably studied by carefully noticing the connection between them. A very brief reflection suffices to show that such a connection exists, and that it is attended by very important results.

The people who live in a *hot country* are differently circumstanced from those who dwell in a cold country, and their modes of life will naturally be different in many respects. They will be led to adopt a different kind of

clothing, and their ordinary kinds of food, their houses, their outdoor labours and amusements, with many other things, will be different in the one case from the other. In like manner, the habits, manners, and ideas of people who inhabit a *mountainous and rugged country* will present great differences from those who belong to the inhabitants of a level plain. So also, a people dwelling on *the borders of the sea* will have habits and occupations differing in many ways from those of people who inhabit an inland region; they will (to take one example only) be led to build ships, and thus to engage in maritime intercourse with other nations, which the inhabitants of an inland country can never do.

We shall see, as we proceed with our geography, numerous instances of this close connection between the natural condition and productions of different regions and the social state of their inhabitants.

### EXAMINATION QUESTIONS.

- |  |   |
|--|---|
| <p>1. What is the meaning of the term "Geography?"</p> <p>2. What does "a description of the earth" involve?</p> <p>3. How is geography generally divided?</p> <p>4. What subjects are included under</p> <p style="margin-left: 20px;">(1) Mathematical geography;</p> <p style="margin-left: 20px;">(2) Physical geography;</p> <p style="margin-left: 20px;">(3) Political geography?</p> | <p>5. What connection is there between the physical and the political geography of a country?</p> <p>6. How may the geography of any part of the earth be most profitably studied?</p> <p>7. Give an example of the way in which the physical geography of a country affects the condition and pursuits of its inhabitants.</p> |
|--|---|

## MATHEMATICAL GEOGRAPHY.

1. THE EARTH is very nearly a globe in shape, that is, it is round (like a ball or an orange).

(a.) That the earth is *round* is proved by

1. The circumnavigation of the globe.
2. The shadow of the earth, when the moon is eclipsed, is always "round."
3. The topmasts of a vessel approaching the shore are always seen *first*; were the surface of the sea perfectly *flat*, the largest part of a vessel, the hull, would be seen *first*, and the small topmasts *last*.
4. The hull of a vessel leaving the land disappears *first*, the topmasts *last*, which would not be the case if the surface of the sea were not "curved."
5. The earth is a planet. All the other planets are *round*. The earth, therefore, is most probably "round" also.

(b.) The *rotundity* of the earth has not only been demonstrated as above, but has also been *proved by actual measurements*, from which astronomers have calculated its *exact* size and shape.

We thus know that the earth is not *perfectly round*, i.e., a sphere,<sup>1</sup> but is *slightly compressed* at the poles,<sup>2</sup> so that its *exact shape* is that of an "oblate spheroid."

2. The earth measures about 25,000 miles round, and a straight

1. A sphere (Gr. *Sphaïra*, a ball) is a *perfectly round* body. A *slightly compressed* body, like an orange, forms an oblate spheroid; an *elongated* one, like a lemon, is a prolate spheroid.

2. Poles, Gr. *polos*—*pelô*, to be in motion.

line supposed to pass through its centre would be about 8,000 miles long.<sup>1</sup>

The former of these measurements is called the *Circumference*<sup>2</sup> of the earth, the latter its *Diameter*.<sup>3</sup>

3. The earth is constantly turning round, in a direction from west to east, upon an imaginary line (called its *Axis*<sup>4</sup>), which passes through its centre, and which therefore forms one of its diameters. This motion is the cause of day and night, and is called its *Daily* or *Diurnal*<sup>5</sup> Motion, because the earth rotates on its axis once a day.

The earth's *Axis* is the imaginary line upon which it turns. Its extremities are called the *Poles* of the earth. One of them is the *North Pole*, the other the *South Pole*.

4. The earth also revolves round the sun once a year. This motion causes the four seasons, *Spring*, *Summer*, *Autumn*, and *Winter*, and is called its *Annual Motion*.

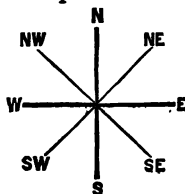
The exact time of the earth's rotation on its axis is 23<sup>h</sup> 56<sup>m</sup> 4<sup>s</sup>.

The exact time of the earth's revolution round the sun is 365<sup>d</sup> 5<sup>h</sup> 48<sup>m</sup> 51<sup>s</sup>.

5. The *Equator*<sup>6</sup> is a circle drawn round the earth midway between the poles—that is, at exactly the same distance from each pole.

The equator divides the globe into two halves or *Hemispheres*—a Northern Hemisphere and a Southern Hemisphere. The *Northern Hemisphere* is that half of the globe which is between the equator and the north pole, and the *Southern Hemisphere* is the half that is between the equator and the south pole.

6. *North*, *South*, *East*, and *West* are terms used to express the relative positions of places to one another. They are the four *Cardinal*<sup>7</sup> Points of the compass—an instrument used to determine the respective bearings of places.



There are altogether thirty-two points of the compass—twenty-eight of the number being intermediate between the four cardinal points. The point lying midway between north and east is called *North-East*; that midway between north and west is *North-West*. In like manner the points lying midway between the east and west and the south points are called *South-East* and *South-West*.

These points are sometimes called the four *Collateral Points*. The *Cardinal Points* are generally abbreviated thus:—N., S., E., W. The *Collateral Points* thus:—N.E., N.W., S.E., S.W.

1. More exactly, the dimensions of the earth are as follows:—

Equatorial diameter, 7,926 miles.

Polar diameter, 7,909 miles.

Mean diameter, 7,912½ miles.

Circumference, 24,900 miles.

Area of surface, 196,000,000 square miles.

Solid contents nearly 200,000,000,000 cubic miles.

Weight of the globe about 6,160,718 millions of tons.

2. *Circumference*, Lat. *circum*, round; *fero*, I carry.

3. *Diameter*, Gr. *día*, through; *metron*, a measure.

4. *Axis*, Lat. *axis*, an axle-tree.

5. *Diurnal*, Lat. *diurnus*, of or belonging to a day.

6. *Equator*, Lat. *æquo*, I make even or equal.

7. *Cardinal*, Lat. *cardinalis*, chief, i.e., the chief points of the horizon.

7. A **Meridian**<sup>1</sup> is a line drawn round the earth in the exact direction of *north* and *south*—that is, passing through the poles, and crossing the equator at right angles.

Such a line may be supposed to pass through any given place on the earth's surface (and may, of course, be actually drawn upon the surface of the artificial globe); it is then called the Meridian of that place. Thus, a line drawn through London in the exact direction of north and south is called the Meridian of London.

8. The **Positions of Places** on the earth's surface are indicated by means of latitude and longitude.<sup>2</sup>

*Latitude* is distance in the direction of north and south.

*Longitude* is distance in the direction of east and west.

The amount either of latitude or longitude is expressed in degrees.

Every circle, whether great or small, is supposed to be divided into 360 equal parts or *Degrees*. A quarter of a circle (or *quadrant*) contains, therefore, 90 degrees.

9. **Latitude** is distance measured, in degrees, from the equator towards either pole; and the greatest latitude which a place can have is 90 degrees—that is, the extreme distance of either pole from the line of the equator.

All places situated between the equator and the north pole are said to be in *North Latitude*; all places that lie between the equator and the south pole are in *South Latitude*. (Abbreviated thus:—London, 51° 30' *N.*; Melbourne, 37° 50' *S.*).

10. **Longitude** is distance to the *east* or *west* of any given meridian, and is measured halfway round the globe—that is, 180 degrees upon each side of any meridian—and is called **East Longitude** or **West Longitude**, according as it is to the east or to the west of the meridian that is used.

In England, we use the meridian supposed to pass through Greenwich (near London), where our National Observatory is situated. Hence we say that a place is so many degrees longitude *east* of Greenwich or *west* of Greenwich. (Abbreviated thus:—London, 0° 5' *W.*; Melbourne, 144° 58' *E.*).

11. Every **Degree** is divided into sixty equal parts called *Minutes*, and every minute is divided into sixty equal parts or *Seconds*.

The following signs are used to express degrees, minutes, and seconds—° ' ". If it is necessary to express distances (either of latitude or longitude) which are less than a degree, we say that a place is in so many degrees, so many minutes, and so many seconds, using these signs. Thus, 24° 16' 8" means twenty-four degrees, sixteen minutes, and eight seconds; just in the same way that, in order to express an amount of money, we might say £24, 16s. 8d., that is, twenty-four pounds, sixteen shillings, and eight pence.

12. **Parallels of Latitude** are circles drawn round the globe in a direction parallel to the equator.

Parallels are usually drawn upon artificial globes and maps at every ten (or sometimes every five) degrees apart. They serve to show, in a general

1. Meridian. Lat. meridies, mid-day. Places on the same meridian have mid-day or noon at exactly the same time.

2. Latitude. Lat. latitudo, breadth; longitude, lat. longitudo, length. These terms were applied

by the ancients, who thought that the earth extended further east and west than north and south. Hence they supposed the length of the earth was from east to west, and the breadth from north to south.

way, the latitudes of various places. Places that are on (or near) the same parallel have, of course, the same (or nearly the same) latitude.

13. **Meridian Lines**—that is, lines in the exact direction of north and south—are also generally drawn upon globes and maps at distances either of five or ten degrees apart, and serve to show the longitudes of places.

Places that are on (or near) the same meridian have the same (or nearly the same) longitude.

14. The **Tropics**<sup>1</sup> are circles drawn round the globe in a direction parallel to the equator, and at a distance of  $23\frac{1}{2}^{\circ}$  from that line.

That drawn at  $23\frac{1}{2}^{\circ}$  to the north of the equator is called the *Tropic of Cancer*; the similar circle drawn at  $23\frac{1}{2}^{\circ}$  south of the equator is called the *Tropic of Capricorn*. These lines mark the furthest distances, on either side of the equator, within which the sun is vertical.

15. The two **Polar Circles** are drawn round the globe in a direction parallel to the equator, and at distances of  $23\frac{1}{2}^{\circ}$  from either pole.

The circle drawn at  $23\frac{1}{2}^{\circ}$  from the north pole is distinguished as the *Arctic Circle*. That drawn at  $23\frac{1}{2}^{\circ}$  from the south pole is called the *Antarctic Circle*. These circles mark the limits (from either pole) within which the sun remains wholly above the horizon for a term of more than twenty-four hours at one season of the year, or does not rise for a term of more than twenty-four hours at the opposite period of the year.

16. **Zones.**<sup>2</sup>—The tropics and polar circles serve to divide the surface of the earth into five *Zones*—one *torrid*<sup>3</sup> zone, two *temperate*<sup>4</sup> zones, and two *frigid*<sup>5</sup> zones.

1. The **Torrid Zone** extends on either side of the equator, and is bounded on the north by the Tropic of Cancer, and on the south by the Tropic of Capricorn.

2. The **North Temperate Zone** is the space between the Tropic of Cancer and the Arctic Circle.

3. The **South Temperate Zone** lies between the Tropic of Capricorn and the Antarctic Circle.

4. The **North Frigid Zone** embraces the space within the Arctic Circle surrounding the north pole.

5. The **South Frigid Zone** comprises the space within the Antarctic Circle surrounding the south pole.

The *Torrid Zone* is the hottest part of the world, because there the sun is vertical, or directly over head. The *Frigid Zones* are the coldest parts of the globe, for there the sun is, during a portion of the year, wholly absent—not rising above the horizon for weeks (or months) in continuous succession. The *Temperate Zones* (as the

1. Greek, *trepo*, I turn. Because the sun, in its apparent annual path through the heavens, turns back towards the equator when it has reached a point vertically over the line of the tropic, or  $23\frac{1}{2}^{\circ}$  on either side of the equator.  
2. Arctic, Antarctic, Gr. *arktos*, a bear, from the constellation of the Great Bear which over-  
lies the arctic circle. The term arctic is also  
synonymous with *northern* or *north*. In the  
term *antarctic*, the prefix *anti* means opposite

to or over against, i. e., opposite to the arctic circle.

3. Zones, Gr. *sona*, a belt or girdle.

4. Torrid, Lat. *torridus*, parched or scorched.

5. Temperate, Lat. *tempero*, I moderate—the climate of this zone being neither extremely hot nor intensely cold.

6. Frigid, Lat. *frigidus*, cold; the frigid zones are intensely cold.

word "temperate" implies) are neither so hot as the torrid zone, nor so cold as the frigid zones.

The extent of the various zones is as follows :—

1. The *Torrid Zone* from 23° 28' north, to 23° 28' south, of the equator ; total breadth, 46° 56" (or about 3,238 miles).<sup>1</sup>
2. The *North and South Temperate Zones*, from 23° 28' to 66° 32' north and south latitude respectively, are each 43° 4' broad.
3. The *North and South Frigid Zones* have each a radius of 23° 28' from the north and south poles respectively.
4. Of a total area of 197,000,000 square miles, the *torrid zone* embraces 78,406,000 ; the *temperate zones*, each 51,121,500 ; and the *frigid zones*, each 8,175,500.

### EXAMINATION QUESTIONS.

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. What is the shape of the earth?</li> <li>2. How can we prove that the earth is round?</li> <li>3. What is the exact shape of the earth?</li> <li>4. What are its dimensions?</li> <li>5. Does the earth move? How?</li> <li>6. What phenomena are caused by (a) the annual and (b) the diurnal motions of the earth?</li> <li>7. What is the axis of the earth, and what are its ends called?</li> <li>8. What is the equator, and how does it divide the globe?</li> <li>9. What is meant by the <i>poles of the compass</i>? How many of them are there? How are the <i>cardinal and collateral points</i> named?</li> </ol> | <ol style="list-style-type: none"> <li>10. What is a <i>meridian</i>?</li> <li>11. How are the <i>positions of places</i> on the earth's surface indicated?</li> <li>12. What is (a) <i>latitude</i>? (b) <i>longitude</i>?</li> <li>13. What purpose do (a) <i>parallels</i> and (b) <i>meridians</i> respectively serve?</li> <li>14. What are the <i>tropics</i>, and what do they indicate?</li> <li>15. What are the <i>polar circles</i>?</li> <li>16. How many <i>zones</i> are there? Name them.</li> <li>17. Which is the <i>hottest</i> zone? Which is the <i>coldest</i>?</li> </ol> |
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## PHYSICAL GEOGRAPHY.

THE surface of the earth is divided into land and water, the LAND occupying little more than one-fourth, and WATER nearly three-fourths of the whole.

The *total area* of the globe is estimated at 197,000,000 square miles, of which *Land* occupies 51,500,000 square miles, and *Water* 145,500,000 square miles.

### I. LAND.

The land occupies little more than one-fourth of the surface of the globe, and consists of two immense *continuous* masses and a vast number of smaller *separate* masses.

The two *continuous* land-masses are separated by the Atlantic and Pacific Oceans, and are called the *Eastern* and the *Western Continents* respectively.

1. The *Eastern Continent* is divided by the chain of the Ural Mountains and the Mediterranean Sea into three great divisions :—*Europe*, *Asia*, and *Africa*.

2. The *Western Continent* is divided by the Caribbean Sea and the Gulf of Mexico into two main portions, called *North* and *South America*.

<sup>1</sup> The length of a degree of latitude varies slightly, increasing from 69.7 statute miles near the Equator to 69.4 towards the Poles. The length of a degree of longitude varies constantly, decreasing from 69 miles at the Equator (48.3 at 45° N. or S.) to 0 at the Poles.



3. To the south-east of the Eastern Continent is another vast mass of land, entirely surrounded by the sea, called *Australia*.

Each of the great divisions of the two main land-masses (and the island of Australia) is also called a Continent, so that there are six Continents :—Europe, Asia, Africa, North America, South America, and Australia.<sup>1</sup>

Europe, Asia, and Africa together form the Eastern Continent, or the *Old World*, so called because they were known to the nations of antiquity. America, often called the *New World*, was not discovered until a comparatively modern period—towards the close of the 15th century.

1. EUROPE is the north-western portion of the Old World, from the rest of which it is separated by the Mediterranean Sea and the Ural Mountains.

2. ASIA is the eastern, and by far the largest, portion of the Old World.

Europe and Asia form in reality one continuous and connected mass of land, and are often spoken of together under the name of *Eurasia*.

3. AFRICA is the southern portion of the Old World, and is separated from Europe by the Mediterranean Sea, but united to Asia by the Isthmus of Suez.

4. AMERICA, though sometimes spoken of as *one* continent, is distinctly divided into two great masses, united only by the narrow Isthmus of Panama, and distinguished as *North America* and *South America*.

5. AUSTRALIA is an immense island lying to the south-east of Asia, from which it is separated by the Malay Archipelago.

Australia, New Zealand, and the numerous islands and archipelagoes in the Pacific are sometimes classed together under the general name of *Oceania*.

Of the above divisions of the land, Europe, Asia, Africa, and Australia are in the *Eastern Hemisphere*, and North and South America in the *Western Hemisphere*. The whole of North America, Europe, Asia, a small part of South America, and the greater portion of Africa, are north of the equator, *i.e.*, in the *Northern Hemisphere*. The remaining portions of South America and Africa and the whole of Australia are south of the equator, *i.e.*, in the *Southern Hemisphere*.

1. The Eastern Hemisphere contains twice as much land as the *western*.

2. The Northern Hemisphere contains three times as much land as the *southern*.

3. The Continental Hemisphere, that is, a hemisphere in which England occupies the centre, includes the greater part of the *land*, while

4. The Oceanic Hemisphere is nearly all covered with *water*, the only considerable portions of land being Australia, New Guinea, &c., and the southern part of South America.<sup>2</sup>

1. The areas of the continents, in round numbers, are as follows:—

	Sq. Miles.
Europe, . . . . .	3,700,000
Asia, . . . . .	17,500,000
Africa, . . . . .	12,000,000
North America, . . . . .	3,200,000
South America, . . . . .	7,000,000
Australia, . . . . .	3,000,000

2. The amount of land in the various hemispheres is as follows:—

	Sq. Miles.
Northern Hemisphere, . . . . .	28,000,000
Southern Hemisphere, . . . . .	12,500,000
Eastern Hemisphere, . . . . .	35,500,000
Western Hemisphere, . . . . .	16,000,000
Continental Hemisphere, . . . . .	43,500,000
Oceanic Hemisphere, . . . . .	5,000,000

\* For full particulars relative to the distribution of land and water, the student is referred to the *Geography of the Oceans* (G. Philip & Son).

The following terms are used to denote various portions of the land :—

1. **Continent.**<sup>1</sup>—The largest divisions of land are called *Continents*.

There are, as we have said, *six* continents :—*Europe, Asia, Africa, North America, South America, and Australia.*

2. **Island.**<sup>2</sup>—A portion of land surrounded by water is called an *Island*. Borneo, Madagascar, Iceland, Great Britain—any one of which may be readily found upon an artificial globe, or on a map of the world—are examples of islands.

Several *small* islands lying close to each other form a Group. Several *large* islands or island-groups near each other form an Archipelago. An *Islet* is a small island in the *sea*. An *Eyot* is an island in the channel of a river.

3. **Peninsula.**<sup>3</sup>—A portion of land *nearly* surrounded by water is called a *Peninsula*. Italy, Greece, Florida, Arabia, are examples of peninsulas. Sweden and Norway (together) also present an example of a peninsula ; so, too, do Spain and Portugal.

4. **Isthmus.**<sup>4</sup>—A narrow neck of land which unites any two larger portions is called an *Isthmus*. As, for example, the Isthmus of Suez, which unites Asia and Africa ; the Isthmus of Panama, which joins North and South America ; and the Isthmus of Corinth, which joins the southern part of Greece (the Morea) to the mainland.

Of the two most important isthmuses of the world, those of *Suez* and *Panama*, the former is already pierced by a canal large and deep enough to enable the largest vessels to pass from the Mediterranean into the Red Sea, and an "inter-oceanic canal" across Nicaragua or the Isthmus of Panama would enable vessels to proceed from the Atlantic directly into the Pacific, thus avoiding the dangerous and tedious voyage round Cape Horn.

5. **Coast.**<sup>5</sup>—The line where the land and water meet is called the *coast*.

The term *Coast*<sup>6</sup> is generally used when *land* is spoken of, and *Shore*<sup>7</sup> when the *sea* is spoken of.

The term *sea-board* is synonymous with "shore," and means the *border* or *margin* of the land adjoining the sea.

The *Beach* is that part of the land between the high and low water-marks.

1. Continent, Lat. con, together ; and *tenes*, I hold.

2. Island, O.-Fr. *island*, i.e., eye-land ; Lat. *insula*.

3. Peninsula, Lat. *penes*, almost ; and *insula*, an island.

4. Greek, *isthmos*, the name given to the narrow neck of land which joined the Peloponnesus (or Morea) to the mainland of Greece, near the city of Corinth.

5. (a) The length of the coast-line of each continent, and (b) the number of square miles of surface to each mile of coast, are as follows :—

	(a)	(b)
Europe, . . . . .	19,500	120
Asia, . . . . .	28,000	800
Africa, . . . . .	16,000	780

	(a)	(b)
North America, . . . . .	24,500	380
South America, . . . . .	18,000	483
Australia, . . . . .	10,000	300

In proportion to its area Europe has little more than two and a half times as much coast-line as Asia, very nearly four times as much as Africa, nearly twice as much as North America, two and a half times as much as South America, and one and a half times as much as Australia. Taking Europe as 1, the extent of coast-line in proportion to area will be as follows :—Europe, 1 ; Asia, '88 ; Africa, '28 ; North America, '54 ; South America, '38 ; Australia, '32.

6. Coast, Lat. *coast*, a side.

7. Shore, A.-S. *searow*, to divide.

6. **Cape.**<sup>1</sup>—A point of land which advances beyond the general coast-line, so as to project or jut into the water, is called a *Cape* or *Point*.

The terms *Promontory*, *Head*, or *Headland*, are often applied to capes—the first more especially to high points of land. *Cape Comorin* (the southern point of India), *Cape Horn* (at the south of the New World), the *Cape of Good Hope* (in the south of Africa), and *Flamborough Head* (on the east coast of England) are examples of capes.

Of the *local names* of capes we may notice the terms *Ness*, *Naze*, *Bill*, used in England, &c.; *Mull*, in Scotland; *Foreland*, in England and Ireland; *Bec*, in France, &c.

7. **Plain.**<sup>2</sup>—A portion of land not much raised above the sea, and with a generally level surface, is called a *Plain* or *Lowland*. European Russia, Lombardy (in North Italy), and the valley of the Mississippi (in North America), are examples of lowland plains.

Some of the great plains are distinguished by special names, such as

The *Landes*, or sandy plains of south-west France.

The *Steppes* of Russia and Central Asia, open and treeless plains.

The *Tundras* of Siberia, low swampy plains sloping into the Arctic Ocean.

The *Savannahs* and *Prairies* of North America.

The *Llanos* or grass flats periodically inundated by the Orinoco.

The *Selvas* or forest-plains of the Amazon valley.

The *Pampas* of La Plata, "broad thistly flat and grassy pastures."

8. **Tableland.**—A tract of land which rises to a considerable height (as a thousand feet or upwards) above the level of the sea, is called a *Tableland* or *Plateau*.<sup>3</sup> The country called Tibet (in Central Asia) is an example of a plateau or tableland; so also is the interior of Spain, in the European quarter of the globe.

9. **Mountain.**—A smaller portion of land rising above the adjoining plain forms a *Hill* or *Mountain*.<sup>4</sup> When many such elevations occur close beside one another, they form a *Mountain Group*, or if in succession in one line, a *Mountain Range* or *Chain*. The Grampians (in Scotland), the mountains called the Alps (between Italy and Switzerland), the Himalaya Mountains (in Asia), are examples. The heights of places are generally expressed in feet, and are calculated from the level of the sea, that is, from the average level of the waters which cover so large a portion of the earth's surface. Thus, we say of a mountain or a tableland that it is so many thousand feet above the level of the sea.

Small hills are variously named. The general term is *Hillocks*, but if rounded they are called *Knolls*, if of chalk formation and rounded, *Downs*. Sand-hills on the sea-shore are called *Dunes*. High prominent peaks are in some parts of England called *Tors*, or, if formerly used as fire-signal stations, *Beacons*.

The terms "range" and "chain" are often used synonymously, but

A *Mountain Range* is a succession of connected elevations in the same line, as the *Pennine Range*; while

A *Mountain Chain* is a series of mountain ranges generally parallel to one another, as the *Andes*.

1. *Cape*, Lat. *caput*, the head.  
2. *Plain*, Lat. *planus*, flat, broad.  
3. *Plateau*, Fr. *plat*, flat.

4. The term *hill* is generally applied to elevations under, and *mountain* to those above, 1,000 feet in height.

A **Mountain Group** consists of a number of irregularly-arranged elevations near each other, as the *Cumbrian Group*.

A **Mountain System** is a series of ranges or groups of mountains having the same general direction or position, as the *Alpine system*.

A narrow opening between two adjoining mountains is called a **Mountain Pass**, and also, in some cases, a **Defile** or **Ravine**. The passes over mountain chains lie, in some instances, at vast heights above the plains below.

10. A **Volcano**<sup>1</sup> is generally a conical elevation with a cup-like hollow at its summit called a **Crater**,<sup>2</sup> from which lava, mud, &c., are ejected.

Volcanic districts especially are subject to *Earthquakes*. The *Geysers* of Iceland throw out jets of hot water; the *Solfataras* of Italy, &c., emit sulphur and other gases.

11. **Valley**.<sup>3</sup>—A sloping portion of land, bounded on either side by lands of greater height, forms a *Valley*.

The forms, both of valleys and of hills, are infinitely varied. Sometimes the slopes are long and gentle; in other cases they are abrupt and steep, so that the valley passes gradually into a ravine or defile. Valleys are generally named after the rivers which flow through them, as the *Valley of the Nile*. In Scotland, the terms *Strath*, *Corse*, *Dale*, &c., are used, as *Strathmore*, &c.

12. **Desert**.—A tract of country which does not allow of sufficient cultivation to be fit for the settled abode of man, is called a *Desert*.

The vast region called the *Sahara*, in Africa, is the most prominent example. It is to the want of water that the sterility of such tracts is for the most part due. But even in the Sahara there are, here and there, a few fertile spots, called *Oases*.<sup>4</sup>

#### EXAMINATION QUESTIONS.

1. What proportions do the land and water of the globe bear to its whole extent?
2. How is the land distributed?
3. Name the continents.
4. Which of the continents belong to the Old, and which to the New, World?
5. What (in round numbers) is the area of each continent?
6. What is an *island*? What is the difference between an *islet* and an *isot*?
7. Define the following terms and give examples of each:—(a) peninsula, (b) isthmus, (c) coast, (d) cape.

8. What is a *plateau*? How are the great plains of Eurasia and America distinguished?
9. Explain the words *tableland*, *highland*, *plateau*.
10. What is (a) a *hill*, (b) a *mountain*?
11. How are small *hills* often distinguished?
12. Define the terms (a) *mountain chain*, (b) *mountain range*, (c) *mountain group*, (d) *mountain system*.
13. What is (a) a *volcano*, (b) a *geyser*?
14. What is a *valley*, and what varieties of aspect do valleys exhibit?
15. What is a *desert*? To what cause is the sterility of deserts for the most part due?

1. Volcano, from *Vulcanus*, the god of fire.  
2. Crater, Gr. *Krater*, a large bowl or cup.  
3. Valley, Lat. *vallis*.

4. Oasis, Gr. *oasis*, originally the name of an "island" in the "Sea of Sand" in North Africa.

## II. WATER.

The terms applied to the various portions of the waters of the globe are the following:—

1. **Ocean.**—The vast expanse of water which covers the larger portion of the earth's surface is called the *Ocean*,<sup>1</sup> and is divided by the intervening lands into three great basins—the Pacific,<sup>2</sup> Atlantic,<sup>3</sup> and Indian<sup>4</sup> Oceans. The waters which lie around the north pole are, in addition, distinguished as the Arctic<sup>5</sup> Ocean, and those in the neighbourhood of the antarctic circle are called the Antarctic<sup>6</sup> Ocean. There are, therefore, in all, five oceans.

(1.) The Pacific Ocean is by far the largest of the oceans, and covers more than a third part of the earth's surface. Its superficial extent is considerably greater than the united area of the several continents. In the direction of north and south—from Bering Strait to the Antarctic Circle—the Pacific stretches through more than 130 degrees of latitude, or upwards of 9,000 miles; from east to west—between the 80th meridian west, and the 104th east, of Greenwich—its dimensions are still greater, exceeding 170 equatorial degrees, or above 12,000 miles. An ocean that measures 12,000 linear miles in one direction, and 9,000 in another, must of necessity exercise a vast influence over all the lesser features of the earth's surface, and is of the highest importance to mankind.

The Pacific is distinguished from the other oceans by its shape, and by the character of its shores. It is a vast oval, the coasts of which, after making near approach in the extreme north, gradually recede towards the direction of the equator, along which line they attain their extremest distance apart. Thence to the southward, they again approximate, though in a much less degree than is the case in the northern half of this great ocean. The waters of the Southern Pacific stretch, uninterrupted by land, to the line of the Antarctic Circle, and perhaps even to the south pole itself.

The Pacific has no inland seas connected with its waters. Its eastern shores exhibit—the Gulf of California excepted—no indentations of the land upon a scale of great magnitude. But its western side displays a feature which is peculiarly characteristic of this ocean, in the range of seas and gulfs which stretch along the coasts of Asia, between the mainland and the neighbouring groups of islands. The following seas and gulfs, all of them arms of the Pacific, occur along the eastern side of the Asiatic continent:—

Bering Sea.	Japan Sea.	China Sea.
Sea of Okhotsk, or	Yellow Sea.	Gulf of Tonquin.
Kurile Sea.	Gulf of Pe-chi-li.	
Gulf of Tartary.	East Sea.	Gulf of Siam.

The above are not inland seas like the Mediterranean, the Baltic, or the Red Sea. They are merely extensions of the ocean itself, partially divided from its main body by a succession of island groups. Between these islands there are numerous channels and straits, which connect the partially landlocked gulfs of the Pacific with the ocean itself, and with one another.

1. Ocean, Gr. *okeanos*.

2. Pacific, Lat. *pacifus*, peaceful; so named by Magellan.

3. Atlantic, from Mount Atlas in Africa.

4. Indian Ocean, so named from its proximity to India.

5. Arctic, Gr. *arktos*, the bear, or the north.

6. Antarctic, Gr. *anti*, opposite to; *arktos*, the north.

(2.) **The Atlantic Ocean.**—If the lines of the Arctic and Antarctic Circle be taken as marking the limits of the Atlantic in the direction of north and south, its meridional dimensions are the same as those of the Pacific, that is, upwards of 9,000 miles. But its proportions in the opposite direction are greatly inferior. Along the line of the northern tropic the Atlantic measures 4,500 miles across from east to west. It is there that its opposite shores are at their extreme limits apart. At the equator they are 4,200 miles asunder—a space which, great as it is, is scarcely more than a third of the measure of the Pacific under the same line. Along the 50th parallel, only 2,200 miles intervene between the shores of Britain and Newfoundland, and the distance measured along the arc of a great circle between the same points is still less. The distance between the nearest headlands of the African and South American coasts is only 1,800 miles.

The Atlantic has the shape of a long valley, winding from north to south, somewhat in the shape of the letter S, like the successive curves of a river. The direction of its coasts upon either side, between the Arctic Circle and the Tropic of Cancer, is from north-east to south-west. Thence to the equator, the direction becomes reversed—or from north-west to south-east. From the easternmost point of Brazil southward, the shores of South America resume the same direction as that of the coasts upon either side of the northern Atlantic, that is, a direction from north-east to south-west.

The Atlantic is distinguished by its *inland seas*, with their numerous gulfs and other inlets, and the consequent extreme development of coast-line which its basin exhibits. This is characteristic of both its lines of coast, but is more especially so of its eastern than of its western shores.

The inland seas which belong to the Atlantic basin are:—

- (1.) The **Mediterranean**,<sup>1</sup> which is inclusive of the Black Sea, together with the numerous gulfs and channels belonging to that region, as the Adriatic, &c.
- (2.) The **Baltic Sea**, which includes the Gulfs of Bothnia, Finland, and others of less size.
- (3.) **Hudson Bay**, which is the only true inland sea belonging to the Atlantic basin on its western side.

Adding the measure of the Mediterranean and Baltic coasts, with those of Hudson Bay, to the circuit of the outer shores of the Atlantic, the total length of the *coast-line* which is developed in connection with the Atlantic waters greatly exceeds the coast-line of the Pacific. The Mediterranean and its gulfs alone have a coast-circuit of more than 13,000 miles.

The Atlantic has, both on its eastern and western side, seas which resemble those of the Western Pacific in their character of partial division from its open basin by insular tracts of land. The seas that lie around the shores of Britain, on the one side, and the **Gulf of St. Lawrence**, the **Mexican Gulf**, and the **Caribbean Sea**, on the other, are the most prominent examples. **Baffin Bay**, though situated to the northward of the Arctic Circle, yet belongs rather to the Atlantic basin than to that of the Arctic Ocean.

A circumstance of the highest importance in connection with the Atlantic (and especially so when regarded conjointly with its extended coast-line) is the fact that most of the great lowland-plains slope towards its basin. By far the larger number of the great rivers are discharged into the Atlantic and its gulfs. The **Mississippi**, **St. Lawrence**, **Amazon**, **Orinoco**, **La Plata**—the **Rhine**, **Danube**, **Nile**, **Niger**, and **Senegal**—are examples.

1. *Mediterranean*, Lat. *medius*, middle; *terra*, land.

Soundings taken by the "Challenger," in the scientific voyage of 1873-75, indicate, in the case of the Atlantic, a *depth* of 23,250 feet in immediate proximity to the island of St. Thomas, West Indies. This exceeds by a half the height of Mont Blanc, and nearly equals the highest elevations of the Andes. Depths of 20,000 feet and upwards have been ascertained in other parts of the North Atlantic basin. A maximum depth of 15,600 feet appears to have been found in the southern portion of the Indian Ocean, to the southward of Australia. Still greater depths occur in the Pacific, where soundings, showing upwards of 27,000 feet, have been found off the coasts of Japan. It is likely that the sea-bed descends *below* the surface to a depth which is not inferior to the elevation of the highest points of the land *above* the same level.

(3.) The Indian Ocean is much smaller than either the Pacific or the Atlantic, and has a marked feature of distinction from either of them in the fact that it is limited by land to the northward. The waters of the other two great oceans stretch to the confines of the Frigid Zones in either direction, north and south alike. The Indian Ocean is bounded on the northern side by the continent of Asia, and is only open in the direction of the Antarctic Circle. Important consequences in regard to climate and other conditions in the physical geography of the globe ensue from this fact.

Under the line of the equator, the Indian Ocean measures little less than 4,000 miles across, from east to west; under the Tropic of Capricorn, this breadth is increased to upwards of 5,000 miles.

The Indian Ocean has two inland seas—the **Red Sea** and the **Persian Gulf**. These are of much smaller dimensions than the inland seas which belong to the Atlantic basin, but they possess the true character of land-enclosed bodies of water. The **Gulf of Aden**, the **Gulfs of Cutch and Cambay**, the **Bay of Bengal**, and the **Gulf of Martaban**, are off-sets of the Indian Ocean, but are neither inland seas nor land-enclosed gulfs.

The waters of the Indian Ocean are connected with those of the Pacific by the channels which divide the innumerable islands of the East Indian Archipelago. The **Strait of Malacca** and the **Strait of Sunda** are the two most important of these channels, and lead directly from the Indian Ocean into the China Sea. **Torres Strait**, further to the eastward, forms another great channel of connection between the two oceans.<sup>1</sup>

(4.) The Arctic Ocean—looked at either upon the artificial globe, or on a map projected upon the plane of the equator (which alone show its shape and proportions)—exhibits a circular and nearly land-enclosed basin, common to the northern coasts of Europe, Asia, and North America. It is open to the Atlantic through the broad sea which flows between the shores of Norway and Greenland,

1 Neither of the three great oceans has, properly speaking, any defined limit to the southward. Their waters communicate, without interruption from land, in that direction. The Antarctic Circle is assigned, for geographical convenience, as their common line of division from the waters that lie around the southern pole. A line drawn from Cape Horn to the Antarctic Circle is, for a like reason, assigned as the common limit between the waters of the southern Pacific and the southern Atlantic basins. A similar line drawn from Cape Agulhas southward indicates the boundary between the

South Atlantic and Indian Oceans, and the meridian which passes through the southernmost headland of Tasmania is regarded as the limit between the basins of the Indian Ocean and the southern Pacific. But these lines have no place in nature, and the term Southern Ocean is commonly applied to the belt of sea which extends (with little interruption from land) round the globe between the parallel of 36° south and the Antarctic Circle. The sea which washes the southern shores of Australia is thus spoken of as the Southern Ocean.

upwards of a thousand miles across. It is only connected with the Pacific by Bering Strait, which is less than sixty miles across in its narrowest part.

The principal seas and inlets which belong to the Arctic basin are :—

1. On the coast of Europe, the *White Sea*.
2. On the coast of Asia, the *Sea of Kara*, and the *Gulfs of Obi and Yenisei*.
3. Of the numerous gulfs, bays, straits, and channels which divide the multitude of islands that adjoin the northern and north-eastern coasts of North America, the principal are :—*Baffin Bay*, connected with the Atlantic by *Davis Strait*, and with the "*Paleocrycitic Sea*," north of Greenland, by *Smith Sound*, *Kennedy Channel*, and *Robeson Channel*; the *Gulf of Boothia*; *Coronation Gulf*, *MacKenzie Bay*, *Lancaster Sound*, *Barrow Strait*, *Melville Sound*, and *Banks' Strait*, leading from Baffin Bay into the open sea on the west.

The Arctic Ocean and its various ice-encumbered channels supply the long-sought "*North-West Passage*" between the Atlantic and the Pacific, by way of the northern shores of the New World. This passage, after a lapse of three centuries since it was first sought, was, in 1850, proved to exist; it is, however, useless for purposes of commerce, owing to the vast quantity of ice by which the seas of this region are encumbered, and the consequent perils (if not, as is the case in many seasons, the utter impossibility) of their navigation. *Davis Strait*, *Baffin Bay*, *Lancaster Sound*, *Barrow Strait*, *Melville Sound*, the Arctic Ocean, and *Behring Strait*, form a continuous channel of connection between the Atlantic and the Pacific. This channel, which may be readily traced out upon the map, forms the "*North-West Passage*."

The limits of the Arctic Ocean in the direction of the pole are unknown. The furthest distance northward to which its shores have been traced is through *Smith Sound*, at the northern extremity of *Baffin Bay*. *Dr. Kane* (of the United States Navy) passed two successive winters in the latitude of  $78^{\circ} 37'$  (in the years 1853-56), and followed the land further northward to the parallel of  $80^{\circ} 53'$ . In 1875, *Sir George Nares* succeeded in carrying the "*Alert*" to the northern extremity of *Robeson Channel*, where he wintered. In the following spring, sledge-parties were sent out, and *Commander Markham*, with his brave companions, reached a spot in latitude  $83^{\circ} 20' 28''$  north—the most northerly point on the globe that had then been attained. *Lieutenant Lockwood*, of the ill-fated *Greeley* expedition, reached in 1882 an island a few miles nearer the pole. Other minor expeditions (*English*, *Dutch*, *American*, &c.) have added to our knowledge of the Arctic regions, but the four hundred and sixty miles between *Markham's* and *Greeley's* "*furthest*" and the pole are as yet untraversed.

(5.) The Antarctic Ocean has been much less frequently visited than the seas that lie within the northern polar circle, and the space which it covers on the maps is for the most part a blank. Several portions of land have been seen by navigators, at distant intervals, along or near the line of the Antarctic Circle, and have been supposed to form part of an immense antarctic continent.

The most extensive region actually visited within the Antarctic Circle, however, is *Victoria Land*, which name was given to a line of coast discovered by *Sir James Ross* in 1841. Its shores stretch between the parallels of  $70^{\circ}$  and  $78^{\circ}$  south, in a direction lying nearly due southward of *New Zealand*. Two active volcanoes (the loftier of them, *Mount Erebus*, estimated at upwards of 12,000 feet) were visible on this dreary and snow-covered region. *Sir James Ross* succeeded in penetrating, amongst the ice-encumbered seas which adjoin

1. The "*North-East Passage*," first attempted by *Sir Hugh Willoughby* in 1583, was successfully accomplished by *Nordenskiöld*, in the *Vega* in 1878-79, and has resulted in the opening of a sea-route (in summer only) between Europe and the

*Obi* and the *Yenisei*. The projected *Transcontinental Railway* will, however, be the main artery of communication with these vast regions of Asiatic Russia.



this distant land, as far as the latitude of  $78^{\circ} 4'$ , which is the nearest approach yet made to the south pole. Important results may be expected from the recent movement in Australia and New Zealand for furthering Antarctic research.

2. **Sea.**—The word *sea* is sometimes used as an equivalent for ocean, but is more generally applied to less extensive portions of the water, situated near the land. A sea which penetrates within the land, so as to be nearly enclosed by it, is called an *Inland Sea*.

The Mediterranean is the largest of inland seas. The Red Sea, between Africa and Asia, and the Baltic Sea, in the north of Europe, are other examples.

3. **Inlets**, or indentations of the coast-line, are variously named according to their form and size.

A **Bay**<sup>1</sup> is a short arm of the sea indenting the land, as the *Bay of Biscay*.

A **Bight**<sup>2</sup> is an open bend in the line of coast, as the *Bight of Biafra*.

A **Gulf**<sup>3</sup> is a longer arm of the sea, penetrating further into the land, as the *Gulf of Bothnia*.

\* \* A *gulf* penetrates further into the land than a *bay*.

A *bay* penetrates further into the land than a *bight*.

Smaller openings or inlets, sufficiently deep and sheltered for vessels to lie in safety, and discharge and receive their cargoes, are called **Havens**, **Harbours**, or **Ports**.

A **Creek**<sup>4</sup> or **Cove** is a small opening in the coast.

A **Firth**, **Fjord** or **Fjord**, is a narrow inlet, as the *Firth of Forth*, *Sogne Fjord*.

An **Estuary**<sup>5</sup> is an inlet forming the mouth of a *tidal* river as the *Estuary of the Thames*.

4. **Strait—Channel.**—The portions of water connecting larger expanses are called *Straits*, *Channels*, or *Sounds*.

A **Strait**<sup>6</sup> is a narrow arm of the sea connecting two larger portions, as the *Strait of Gibraltar*, which forms the entrance of the Mediterranean; the *Strait of Dover*, which unites the seas on the eastern and southern coasts of England; and the *Strait of Bab el Mandeb*, at the entrance of the Red Sea.

A **Channel**<sup>7</sup> is a broader arm of the sea, as the *English Channel*, between the coasts of England and France.

A **Sound** is a narrow arm of the sea between an island and the mainland, as the *Sound* between Sweden and the island of Zealand.

5. **Lake.**<sup>8</sup>—A lake is a body of inland water surrounded by land.

The lakes of Geneva and Constance, in Switzerland; Lake Ladoga, in Russia; and Lake Superior, in North America, are examples. Small lakes often occur in mountainous countries, their beds consisting of hollows or depressions in the land, in which the running waters have accumulated.

1. Bay, Bight, A. S. *baegan*, to bend.

2. Gulf, Gr. *kolpos*, a fold.

3. Creek, A. S. *crecca*, a corner.

4. Estuary, Lat. *estuarium*, appertaining to the tide.

5. Strait, Lat. *strictus*, drawn together.

6. Channel, Lat. *canalis*, a water-pipe.

7. Lake, Lat. *lacus*; cf. Celtic *loch*.

Lakes may be thus classified :—

- (1.) Lakes which receive rivers, but have no outlet.
- (2.) Lakes which do not receive any rivers, but have an outlet.
- (3.) Lakes which both receive and emit rivers.
- (4.) Lakes which receive no rivers, and have no outlet.

A Pond<sup>1</sup> is a small body of *fresh water*, and has no outlet.

A Lagoon<sup>2</sup> is a shallow lake of *salt water* near the sea.

6. River.<sup>3</sup>—A river is a stream of water running through the land, and generally rises in high ground and discharges its waters into the sea, sometimes passing through one or more lakes on its way. Almost every place has in its neighbourhood examples of small running streams or brooks; the junction of several such brooks, so that their waters become united in a larger channel or water-course, forms a river. The *Thames*, the *Severn*, and the *Shannon*, in our own islands, are among the most prominent examples of rivers; the *Danube* and the *Volga*, on the continent of Europe, are instances on a larger scale.

The Source of a river is where it *begins*.

The Mouth of a river is where it *ends*.

The Bed of a river is the hollow along which it *flows*.

The Banks of a river are the margins of land between which it flows—that on the right-hand side (following the course of the stream) is called the *right bank*, that on the left, the *left bank*.

The Length of a river is the distance between its source and its mouth.

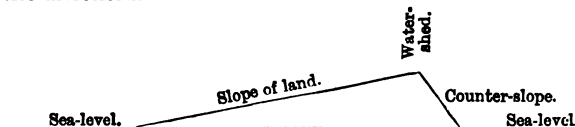
The Width of a river is the distance between its banks.

The Basin of a river is the whole tract of country which is watered by it and its tributaries. Thus, we say (in physical geography), the basin of the Thames, the basin of the Danube—meaning thereby the whole district through which those streams, with all their affluents, respectively flow.

A Tributary or an affluent<sup>4</sup> is a small stream which joins a larger river. Thus the small river Kennet, in Berkshire, is an affluent of the Thames.

When a large river falls over a precipice it forms a Cataract.<sup>5</sup> The fall of a *small* river forms a Cascade.<sup>6</sup> When the slope of the bed of a river is steep or uneven, a Rapid is formed. An artificial water-course is called a Canal.

7. Watershed.<sup>7</sup>—A watershed or, more correctly, “water-parting,” is the ground which divides two adjacent streams that flow in opposite directions.



This generally (but by no means always) consists of a high tract of land, sometimes of a chain of mountains; and it is, in every case, formed by

1. Pond, A.-S. *pyrdan*, to shut in.  
 2. Lagoon, Lat. *lacuna*, anything hollow.  
 3. River, Lat. *ripis*, a bank.  
 4. Affluent, Lat. *affluere*, to flow to.  
 5. Cataract, Gr. *κataraktēs*, a fall.  
 6. Cascade, Lat. *caedo*, I fall.  
 7. Watershed, This term is commonly but erroneously used as if equivalent to the German

word “*Wasser-Scheide*,” which is defined by Ritter as “the mathematical line from which the descent of rivers begins” (“*Die mathematische Linie, von welcher alle Flußhättigkeit der Flüsse beginnt*”). “Water-parting is therefore the more correct term, and should be substituted for “watershed.”

ground which is higher than that through which the streams actually flow, for the natural tendency of water is to run down a sloping ground, from a higher to a lower level. Some rivers, however, rise in ground which is nearly level, and at only a trifling height above the sea; and, in such cases, the watershed may consist of ground which does not exhibit any marked elevation above the adjoining plain.

## EXAMINATION QUESTIONS.

1. What is the ocean, and how is it divided?
2. Give a few particulars relative to each of the five great oceans.
3. What part of the sea is sometimes called the Southern Ocean?
4. Distinguish between a sea and an inland sea.
5. How are the principal and lesser inlets distinguished?
6. Define the terms *strait*, *channel*, *sound*.
7. What is a lake? Give some examples.
8. How may lakes be classified?
9. What is a river?
10. What is meant by the *source*, *mouth*, *bed*, *banks*, and *basin* of a river?
11. What are streams that join larger rivers called?
12. Define the terms *ataract*, *cascade*, *rapid*, *canal*.
13. What is generally meant by the term *watershed*?

## POLITICAL GEOGRAPHY.

The world contains not less than 1500 millions of inhabitants, one-half of whom are in Asia, one-fifth in Europe, one-seventh in Africa, one-thirteenth in America, and about one-fortieth in Oceania.<sup>1</sup>

This vast number of human beings is most irregularly distributed, some portions of the earth, limited in extent, being peopled by millions, while other vastly greater portions have scarcely any inhabitants.

∴ The following is Levasseur's latest estimate :—

Continent.	AREA.		POPULATION.		
	Area in Sq. Miles.	Ratio to Total Area of Globe.	Population.	Aver. Density per Sq. Mile.	Ratio to Total Pop. of Globe.
Europe . . .	3,800,000	2·0	347,000,000	88·7	23·4
Asia . . .	16,000,000	8·2	789,000,000	49·3	53·3
Africa . . .	12,000,000	6·1	197,000,000	16·0	13·3
N. America .	9,000,000	4·6	80,000,000	8·8	5·4
S. America .	7,000,000	3·6	32,000,000	4·5	2·1
Oceania . . .	4,200,000	2·2	38,000,000	9·0	2·6
	52,000,000	26·7	1,488,000,000	28·7	100·0

1. **Race**—Although *all* the peoples of the earth are members of the same "human family," the natural differences in *colour* and *feature* broadly divide them into five great classes or races, viz. :—

(1.) The **CAUCASIAN** (Indo-European), or *white* race, inhabiting Europe and Western Asia, and America, Australia, New Zealand, and other countries colonised by Europeans.

(2.) The **MONGOLIAN**, or *yellow* race, occupying Northern and Eastern Asia, Japan, and also including the Magyars, Turks, Lapps, Finns, Eskimo, and Samoyedes.

(3.) The **NEGRO**, or *black* race, inhabiting the whole of Africa from the Sahara to Cape Colony.

1. Levasseur estimates the present population of the world at 1,488,000,000; Voltaire, in 1750, estimated the total population at 900,000,000; Malte Brun, in 1804, at 640,000,000; the Almanach de Gotha, in 1829, at 847,000,000; and Behm and Wagner, in 1874, at 1,391,000,000.

(4.) The **MALAYAN**, or *brown* race, inhabiting the Malay Archipelago and Polynesia, and also including the Hovas of Madagascar.

(5.) The **INDIAN**, or *red* race, includes the aboriginal natives of America, now almost entirely supplanted in North America, and to a less extent also in South America, by Europeans and Negroes.

The following is a rough estimate of the numbers belonging to each race:—

Caucasian or Indo-European	570,000,000
Mongolian or Turanian	645,000,000
Negro	225,000,000
Malayan	40,000,000
Indian or American	20,000,000
Total	1,500,000,000

**2. Language.**—Besides the distinction of colour and feature which mark out the *races* of men, there is also the important distinction of *language*.

The *races* of mankind are thus further subdivided according to the *language* spoken. The difference in language broadly marks out the nations of the world. Generally speaking, the different *countries* are occupied by different *nations* speaking different *languages*, e.g., France, Germany, &c. But sometimes peoples of different nations, and speaking different languages, are *politically* united, e.g., Switzerland (Germans, French, Italians, &c.).

The inhabitants of the world are therefore divided according to *colour* and *feature* into *races*, and according to their language into *nations*.

There is, further, an all-important difference in the *religious beliefs* of mankind.

**3. Religion.**—The religions of the world may be broadly divided into two classes—*polytheism*, or belief in many gods; and *monotheism*, or belief in one God.

a. *Polytheism* is divided into

- (1.) *Brahminism*, of the Hindus, and in Southern Asia.
- (2.) *Buddhism*, of Eastern Asia, the widest spread of all religious forms.
- (3.) *Fire worship*, of the Parsis of India.
- (4.) *Fetichism*, of the African and other savage tribes.

b. *Monotheism* is divided into

- (1.) *Christianity*, founded on both the Old and New Testaments, “the religion of liberty, of civilisation, and of charity.”

Christianity is subdivided into

- (a.) *Protestantism*, which acknowledges no other authority than the Bible, and adopts two sacraments only.
- (b.) *Roman Catholicism*, of which the Pope is the head, and which admits the seven sacraments, &c.
- (c.) The *Greek Church*, to which the Russians, Greeks, &c., belong.
- (2.) *Judaism*, which receives the Old Testament only, and rejects the New.
- (3.) *Mohammedanism*, based mainly on Judaism, but which adopts some of the Christian tenets, and rejects the doctrine of the Trinity, the sacraments, &c.

*Christianity* prevails throughout Europe, America, Australia, &c. *Judaism* is professed by the Jews. *Mohammedanism* prevails in South-Western Asia, North Africa, and Turkey, and is divided into two great sects, the *Shiites* and the *Sunnites*.

The following is a rough estimate of the numbers professing each religion:—

Christians	{ Protestants, . . . . .	130,000,000
	{ Roman Catholics, . . . . .	175,000,000
	{ Greek Church, . . . . .	100,000,000
	{ Other Christian sects, . . . . .	35,000,000
Jews,	. . . . .	10,000,000
Mohammedans,	. . . . .	165,000,000
Buddhists,	. . . . .	455,000,000
Brahmins,	. . . . .	205,000,000
Heathens (Fetish worshippers, &c.)	. . . . .	165,000,000
Unknown,	. . . . .	60,000,000
Total, . . . . .		1,500,000,000

There is also a vast difference in the *condition* of the nations of the world, some having attained an advanced civilisation, and others remaining in the lowest stage of barbarism.

4. **Government.**—Nearly all the nations of the earth live under some form of government. Barbarous and savage races are generally subdivided into tribes, each despotically governed by its own *chief*. The more civilised nations live under a *monarchical* or *republican* form of government.

(1.) The **monarchical form** of government is that in which the governing power is vested in a hereditary or an elective monarch. In a *despotic monarchy* all the powers of government are vested unreservedly in the monarch. In a *limited monarchy*, the executive power only is vested in the monarch, the legislative power being vested in an elected or hereditary council or parliament.

(2.) In a **republican form** the whole power is virtually exercised by the people through their elected representatives; the executive power being vested in a *President* chosen for a term of years, and the legislative in an elected council or senate.

5. **Revenue—Expenditure.**—The expenses connected with the government of a country, the maintenance of an army and navy, the administration of justice, &c., are met by the imposition of *taxes*, either directly on persons, houses, land, &c., or indirectly on articles exported, or imported, or manufactured for home consumption. The total amount thus received is called the *Revenue*; and, if insufficient to meet the *Expenditure*, additional taxes are imposed, or the deficiency is covered by money borrowed by the State. The annual statement furnished by the government of the estimated expenditure and revenue is called the *Budget*.

6. **National Debt.**—In times of war, the current expenditure is generally much in excess of the ordinary revenue, and, if hostilities are prolonged for a considerable time, the *National Debt* thus incurred amounts to such a sum that it cannot possibly be paid off; although in times of peace, under favourable circumstances, it may be considerably reduced. A certain portion of the annual revenue is therefore reserved to meet the charges for the "interest" and "management" of the national debt.

Nearly all the more advanced states are saddled with enormous national debts, but, with few exceptions, the interest (which, in the case of the United Kingdom, amounts to *more than one-third of the annual revenue*) is regularly paid. Several states pay no interest whatever, and a few have even repudiated their debts. Although generally by far the larger portion of the "national

debts" of the principal countries of the world were originally incurred in times of war, still considerable sums were borrowed from time to time to develop the national resources by the construction of railways and other important public works.

**7. Industries.**—The industries of a country depend not only upon its natural productions, but also upon the character of its inhabitants; thus England has become a great manufacturing country by reason of the abundance of coal, iron, and other useful minerals and metals, and the industry and energy of its inhabitants.

*Agriculture, manufactures, and commerce* form the chief industries of the more advanced nations, but semi-civilised and savage peoples are generally engaged in pastoral pursuits.

The industrial advancement of a nation is evidently dependent to a large extent on the means of intercommunication by navigable *rivers, roads, canals, and railways*; but real progress, both material and intellectual, is only possible when the advantages of education are widely diffused by means of *schools, colleges, and universities*.

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#### EXAMINATION QUESTIONS.

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|--|--|
| <p>1. What is the total population of the world? Give the estimated numbers for each of the continents.</p> <p>2. What is the average density of population in each of the continents?</p> <p>3. What are the most thickly-peopled countries in the world?</p> <p>4. How many varieties or races of men are there? Name them. What part of the world does each race principally inhabit? What numbers belong to each race?</p> <p>5. What distinction is generally founded on language?</p> <p>6. How may the "religions of the world" be broadly divided?</p> | <p>7. Name the three principal forms of Christianity.</p> <p>8. What are the numbers belonging to the various religions?</p> <p>9. Under what form of government do (a) savage, and (b) civilised, nations live?</p> <p>10. Distinguish between the <i>monarchical and republican</i> forms of government.</p> <p>11. Explain the terms—<i>revenue, expenditure, budget, national debt</i>.</p> <p>12. What are the principal industries of civilised nations?</p> <p>13. What are the principal means of <i>intercommunication</i> in England?</p> <p>14. <i>Education</i> is a most important factor in the progress of any country. Prove this.</p> |
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## DIVISIONS OF THE EARTH.

EUROPE, ASIA, AFRICA, NORTH AMERICA, SOUTH AMERICA, AUSTRALIA, and POLYNESIA are the seven great divisions of the Earth. Six of the number, as we have already seen, are continents—that is, large masses of land; the last mentioned of them, Polynesia,<sup>1</sup> consists of a vast number of islands, which lie within the Pacific Ocean, and are surrounded by its waters.

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1. Polynesia, Greek, *poles nesos*, many islands.

## EUROPE.

EUROPE<sup>1</sup> lies entirely within the northern hemisphere, and forms the north-western portion of the Old World.

Europe is not a continent in the strict sense of the term as applied to a "separate and independent mass," like America or Australia, but is, in fact, an immense peninsula jutting out from the western side of Asia, and forming with it by far the largest continuous mass of land. On the south, Europe is entirely separated from Africa by the Mediterranean, and, on the west, from North America by the Atlantic.

**BOUNDARIES.**—Europe is bounded on the *north* by the Arctic Ocean; on the *west* by the Atlantic Ocean; on the *south* by the Mediterranean Sea, the Black Sea, and the Caucasus Mountains; and on the *east* by the Caspian Sea, the river Ural, and the range of the Ural Mountains.

The **Extreme Points** of the mainland are *Cape Nordkyn* (71° 6' N.) on the north; *Cape Tarifa* (36° 1' N.) on the south; the *source of the River Kara* (66° E.) on the east; and *Cape Roca* (9° 28' W.) on the west.

**EXTENT.**—The greatest *length*, from Cape St. Vincent to the Ural Mountains, is 3,370 miles; the greatest *breadth*, from Cape Nordkyn to Cape Matapan, is 2,400 miles. *Area*, including the islands, 3,750,000 square miles.

Europe is therefore, next to Australia, the smallest of the continents; it being about *one-fifth* the size of Asia, *one-fourth* of America, *one-third* of Africa, and *one-fourteenth* of the total area of the land surface, or *one-fifty-third* part of the whole surface of the globe.

**COASTS.**—Very irregular, exhibiting a great many indentations, by means of which the waters of the adjoining seas penetrate far within the general line of its coast. Europe has thus a greater extent of coast-line, in proportion to its size, than is possessed by any of the other continents.

The coast-line of Europe is estimated at 19,500 miles, or 1 mile of coast to every 190 square miles of area. In Russia, no part is more than 700 miles from the sea; in all other European countries the distance is everywhere under 400 miles. The chief natural features are:—

1.—The principal inland seas, bays, and gulfs, belonging to Europe are:—the Mediterranean,<sup>2</sup> Sea of Marmora, Black Sea, and Sea of Azov, on the *south*; the Caspian Sea, on the *south-east*; the Bay of Biscay, English Channel, Irish Sea, North Sea, Zuyder Zee, and Baltic Sea, on the *west*; and the White Sea,<sup>3</sup> on the *north*.

The **Mediterranean** is the largest inland sea in the world, being above 2,400 miles long, and covering nearly 1,000,000 square miles. It includes the *Gulfs of Lions, Genoa, Corinth, Sidra, and Kabes*, and four minor seas—the *Adriatic Sea* (with the *Gulfs of Trieste and Quarnero*), *Tyrrhenian Sea, Ionian*

1. Europe was the name first given to the land bordering on the Hellespont. Ritter is of opinion that it is derived from *Apis*, the Scythian name for the plains west of the Caspian.

2. Mediterranean, *Lat. medius*, the middle, and *terra*, land.

3. The White Sea is so called from its being covered with ice for half the year.

*Sea* and the *Archipelago*.<sup>1</sup> It is divided into two basins by a submarine ridge, extending from Sicily to Cape Bon on the opposite African coast. Its waters are saltier than those of the ocean, consequently a current flows into it from the Atlantic through the *Strait of Gibraltar*.

The **Black Sea** has an area of about 180,000 square miles, and receives the drainage of a third of Europe. Though deep and free from islands and rocks, its navigation is rendered dangerous by sudden and violent storms, and dense fogs, hence its name "*Kara Deniz*," i.e., the Black Sea. The *Sea of Azov* has an area of 20,000 square miles, and is shallow and partially frozen over in winter.

The **Bay of Biscay**<sup>2</sup> is frequently disturbed by violent storms.

The **North Sea** has an area of 244,000 square miles, and is comparatively shallow, especially between England and Holland. Numerous sandbanks and severe storms combine to render its navigation dangerous and difficult.

The **Irish Sea** between Great Britain and Ireland is comparatively deep, but subject to violent storms.

The **Baltic Sea**<sup>3</sup> includes the *Gulfs of Bothnia, Finland, and Riga*, and has an area of 135,000 square miles. The Baltic is generally shallow, especially in the north, and its waters are fresher than those of the Atlantic. Both the Baltic and the Mediterranean are nearly, if not entirely, tideless.

The **Zuyder Zee** was formed by an irruption of the sea in the 13th century.

2.—The principal **Channels and Straits** are :—

*On the west* : the **Skager Rack** (68 miles across) and the **Kattegat** (65 miles) form a continuous channel leading from the North Sea to the **Sound** (3 miles), the **Great Belt** (12 to 24 miles), and the **Little Belt** ( $\frac{3}{4}$  mile), three straits which lead into the Baltic, between Jutland and the coast of Sweden. The **Strait of Dover** (21 miles) connects the North Sea with the English Channel.

*On the south* : the **Strait of Gibraltar** (8 miles) forms the entrance to the Mediterranean. The **Strait of Messina** (8 miles) divides the island of Sicily from the Italian Peninsula. The **Dardanelles** (1 mile) is a strait leading from the Archipelago into the Sea of Marmora. The **Bosphorus**, or **Strait of Constantinople** (1 mile), leads from the Sea of Marmora into the Black Sea ; and the **Strait of Kertch**, or *Yenikale* (4 miles), connects the Black Sea with the Sea of Azov.

The Sound, the Strait of Gibraltar, the Dardanelles, and the Bosphorus are the most important of the above. The **Sound**, because it forms the most frequented channel of entrance to the Baltic Sea ; the **Strait of Gibraltar**, because it is the only entrance to the Mediterranean ; and the **Dardanelles and Bosphorus**, because they are the only channels of entrance to the Black Sea.

3.—The principal **Capes** are :—Cape Nordkyn, North Cape, and the Naze, in Norway ; the Skaw, in Denmark ; Ortelag and Finisterre, in Spain ; Roca and St. Vincent, in Portugal ; Trafalgar and Tarifa, in Spain ; Di Leuca and Spartivento, in Italy ; Matapan, in Greece.

1. The ancient *Egean Sea*, in Greek, *aiçaios pelagos*, of which the modern name is a corruption. The word "archipelago" has become applied as a general term to seas which, like the Grecian Archipelago (or *Egean*), contain a great many islands, and, by modern usage, to the islands themselves. Thus, we speak of the British Archipelago, the East or West Indian Archipelago, and so on.

2. **Black Sea** (Turkish, *Karu Deniz*), so called

from the frequent dense fogs and storms. The ancients first named it *Actæos*, inhospitable ; afterwards changed to *Euxinus*, hospitable.

3. **Bay of Biscay**, from a Spanish province bordering upon it. Fr. *Golfe de Gascoigne*, from the old French province of that name.

4. **North Sea**, also called the "*German Ocean*."

5. **Baltic**, either from *Baltia*, the ancient name of Zealand, or from the Lat. *balticus*, a belt. Cf. Great Belt and Little Belt.



The *most northerly* point of the continent of Europe is **Cape Nordkyn**. **North Cape** is on an island (Mageröe), and is 6° further north. The *most westerly* point is **Cape Roca** in Portugal, and the *most southerly*, **Cape Tarifa**, in Spain.

**PENINSULAS.**—Europe is distinguished by the great number of its peninsulas, the inhabitants of which enjoy naturally great advantages for maritime intercourse and traffic. It is a remarkable fact that all the larger peninsulas of Europe, except Jutland, are turned towards the south.

The principal peninsulas are :—Norway and Sweden, which together form the Scandinavian Peninsula ;<sup>1</sup> Jutland, which forms a portion of Denmark ; Spain and Portugal, or the Spanish Peninsula ; Italy ; the Morea, which is part of Greece ; and, lastly, the Crimea, which is a part of Russia.

All these peninsulas are connected with the mainland by *isthmuses*, of which the most important are :—

1. The **Isthmus of Corinth** (4 miles across), joining the Morea to the mainland of Greece.
2. The **Isthmus of Perekop** (5 miles wide), uniting the Crimea to the mainland of Russia.

**ISLANDS.**—Europe has a great number of islands, some of them situated in the Atlantic and Arctic Oceans, others in the Baltic, and others in the Mediterranean Sea. The islands of Europe are naturally divisible into four classes, according to their position :—

1. In the **Atlantic Ocean**, naming them in order from north to south, are the following :—Iceland, the Faroe Islands, the British Islands, the Channel Islands (off the coast of France), and the Azores<sup>2</sup> or Western Islands.

2. In the **Arctic Ocean** are Nova Zembla, Vaigatz, Kolgouev, Jan Mayen, and the Lofoten Islands. Nova Zembla is really a very extensive group of islands, but is situated in so high and cold a latitude as to be nearly (if not quite) uninhabitable.

3. In the **Baltic Sea** are Zealand, Funen, and several of smaller size, which together form the Danish Archipelago, and lie at or near its entrance ; with Rügen, Bornholm, Oland, Gothland, Oesel, Dago, and the group of the Aland Islands. The island of Zealand has on it Copenhagen, the capital of Denmark.

4. In the **Mediterranean** are Sicily, Sardinia, Corsica, Candia, and Cyprus,<sup>3</sup> which are all of large size. Cyprus is the largest, and Sicily is second in point of magnitude. The smaller islands are Majorca, Minorca, and Iviza (which form together the Balearic Islands) ; Elba, off the west coast of Italy ; the Lipari Islands, to the north of Sicily ; Malta, south of Sicily ; the Ionian Islands, to the west and south of Greece ; and the numerous islands of the Archipelago, among which Negropont, or Eubœa, is the most considerable.

The most important of the islands of Europe are the **British Islands**, which include England, Wales, Scotland, and Ireland, and which lie off the western coast of Europe, within the Atlantic Ocean. England and Wales, with Scotland, together form the island of Great Britain, which is the largest of European islands. Iceland, which also lies in the Atlantic Ocean, but much further to the northward, is the second in point of size.

1. Scandinavia was the ancient name of the countries lying on the western side of the Baltic Sea.

2. The Azores lie a long way out in the ocean,

300 miles to the west of Portugal, and hence too far off to be shown upon the map of Europe.

3. The island of Cyprus is reckoned to belong to Asia.

## EXAMINATION QUESTIONS.

*Note*.—It is indispensably requisite that the student should *constantly* refer to the map; for geography is undoubtedly most rapidly learnt upon the map and by its aid. The facility—acquired by continual practice—of finding places upon the map is the indispensable condition of geographical knowledge, in the only sound meaning of the term.

1. How many great divisions of the earth are there?
2. Which of them are continents?
3. Name the *borders* of Europe.
4. What is the extent of Europe, (a) length, (b) breadth, (c) area?
5. Compare the areas of Europe and the other continents.
6. Describe the coasts of Europe.
7. Name the principal *islets* of Europe, and give a few particulars relative to the most important of them.
8. What seas, bays, and channels occur on the west side of Europe?
9. What is the Bay of Biscay noted for?
10. What two channels and three straits lead from the North Sea to the Baltic?
11. What strait connects the North Sea with the English Channel?
12. What forms the entrance of the Mediterranean?
13. What strait divides Sicily from the mainland of Italy?
14. Name the three straits that lead from (a) the Archipelago into the Sea of Marmora, (b) from the Sea of Marmora into the Black Sea, (c) from the Black Sea into the Sea of Azov.
15. Which are the most important straits of Europe, and why?
16. Name the principal capes of Europe, and say which form the most northerly, southerly, and westerly points.
17. What peninsulas belong to Europe?
18. Name the two principal *isthmuses*.
19. Name the European islands that are situated, (a) in the Atlantic Ocean, (b) in the Arctic Ocean, (c) in the Baltic Sea, (d) in the Mediterranean.
20. Which are the most important among the islands of Europe, and which is the largest of them.

**MOUNTAINS.**—Europe exhibits great variety of surface. The *southern* parts are mountainous. The *middle* parts are less elevated, but may be considered as hilly. The *north-western* peninsula (Norway and Sweden) also contains high mountains. But the whole of *eastern* Europe consists of a vast plain, nearly level, or only diversified by very slight elevations.

The principal mountain-ranges of Europe, with the countries in which they are situated, are as follows:—

- The Alps, on the borders of Italy, France, Switzerland, and Austria.
- The Apennines, in Italy.
- The Balkans and Mt. Pindus, in Turkey and Greece.
- The Pyrenees, between France and Spain.
- The Cantabrian and Castilian Mountains, the Sierra Morena and Sierra Nevada, in the Spanish peninsula.
- The Carpathian Mountains, in the Austrian Empire, between Hungary and Galicia.
- The Harz Mountains, the Black Forest Range, and the Mountains of Bohemia, in Germany.
- The Cevennes, in France.
- The Hardangerfeld, Dovrefield, and Kiolen Mountains, in Norway and Sweden.
- The Ural Mountains, in Russia, on the border of Europe and Asia.
- The Caucasus Mountains, in Russia, also on the border of Europe and Asia.

The mountains of Europe may therefore be divided into four groups: viz., (1) the southern; (2) the central and western; (3) the north-western; and (4) the eastern.

1. The Alps, the Apennines, the Balkan Mountains, the chain of Mount Pindus, the Pyrenees and the Sierra Nevada all belong to the *south* of Europe, and are not far distant from the shores of the Mediterranean.

(1.) The Alps are the highest mountains in Europe, and extend round the north of Italy, and divide that country from France, Switzerland, and Austria. All the upper portions of the Alps are covered with snow, which, owing to the intense cold resulting from their great elevation, never melts. The loftiest mountain among the Alps is *Mont Blanc*, on the borders of Savoy and Piedmont and within France. *Mont Blanc* reaches the great height of 15,784 feet (or nearly three miles) above the sea.

(2.) The Apennines are a chain of mountains which branch off from the Alps, and extend through nearly the whole length of Italy. They are much less elevated than the Alps, having an average height of between 3,000 and 5,000 feet, and culminating in *Monte Corno*, 9,521 feet.

(3.) The Balkan Mountains (average elevation, 4,000 feet) form a chain extending from the Black Sea westward towards the Adriatic, where they become united to the eastern offsets of the Alpine system of mountains. From the Balkan Mountains a chain, called *Mount Pindus*, extends to the southward into Greece.

(4.) The Pyrenees (highest point, *Maladetta*, 11,426 feet) are a chain of mountains which divide France and Spain, and are covered with perpetual snow in their higher portions.

(5.) Many other mountains occur in the Spanish peninsula; the highest among them are the *Sierra Nevada*, near the Mediterranean coast, and which are nearly as lofty as the Pyrenees, their highest point, *Mulhacen*, being 11,660 feet above the sea.

2. The countries of middle and western Europe include the Carpathian Mountains (in the eastern part of Austria-Hungary), the mountains of Germany, and the mountains of central France. None of these are so elevated as the mountains of southern Europe.

(1.) The Carpathians have an average elevation of between 5,000 and 6,000 feet in their higher portions. They form nearly a semicircle, 700 miles in length, enclosing Hungary.

(2.) The Mountains of Germany have an average elevation of not more than 2,000 or 3,000 feet. The principal are the Harz, Erz, Riesen, Sudeten, and Mährische Mountains, the Thuringerwald, Böhmerwald, and Schwarzwald, and the northern portion of the Vosges.

(3.) Of the Mountains of France the principal are the Cevennes and the Mountains of Auvergne. The Jura is between France and Switzerland, and the Vosges between France and Germany. These ranges have an average height of 2,000 to 3,000 feet.

3. The Scandinavian peninsula, in the north-west of Europe, includes a long chain of mountains lying close along the shores of the Atlantic Ocean. They are very much less elevated than the Alps, but, owing to the higher latitude in which they are situated, and the consequently greater cold of the climate, their higher portions are covered throughout the year with snow.

(1.) The Scandinavian Mountains are known as the Hardangerfeld, Langfeld, and Ymesfeld in the south; the Dovrefield in the centre; and the Kiölen Mountains in the north. The highest point is *Galdhöppigen* (8,546 feet) in the Ymesfeld.

4. The Ural Mountains, on the border of Europe and Asia, form a chain 1,200 miles in length, of an average elevation of 2,000 to 3,000 feet, except in the middle, where the average height is under 1,500 feet. The Caucasus, in the south-east, is a long and very high mountain-chain, extending between the Black and the Caspian Seas, and forming one of the natural boundaries between Europe and Asia. The highest point is *Elburz*, 18,571 feet above the sea.

**VOLCANOES.**—The *active* volcanoes<sup>1</sup> of Europe, with one exception, are situated on islands; those on the mainland are, with the exception of Vesuvius, extinct.

The principal active volcanoes are *Hekla* (5,000 feet), in Iceland; *Etna*<sup>2</sup> (10,800 feet), in Sicily; *Vesuvius*<sup>3</sup> (4,000 feet), near Naples; and *Stromboli*, one of the Lipari Islands. Examples of extinct volcanoes are found in almost every part of Europe, e.g., the Mountains of Auvergne in France, the West-werwald, the Eastern Pyrenees, &c.

**PLAINS.**—All the east of Europe is a great lowland, or plain, including nearly the whole of Russia, and also extending along the southern shores of the Baltic, and thence to the coast of the North Sea, including part of Prussia and other German States, Denmark, and Holland. This vast extent of level country is so much greater than is met with in any other part of Europe, that it may be called the *Great Plain*.

The other plains of Europe are the following:—

The **Plain of Hungary**, within the eastern part of the Austrian Empire.

The **Plain of Wallachia and Bulgaria**, to the north of Turkey.

The **Plain of Lombardy**, in the north of Italy.

The **Plain of Languedoc**, in the south of France.

The **Plain of Bohemia**, in the north-west of Austria.

The **Plain of Andalusia**, in the south of Spain.

**RIVERS.**—Every part of Europe is watered by running streams, the greater number of them navigable for long distances inland. Many of them form good harbours at their mouths. In these respects, indeed, Europe is unsurpassed by any of the divisions of the globe.

The *great watershed*,<sup>4</sup> or *water-parting*, of Europe may be approximately marked by a line drawn from Cape Tarifa to the Ural Mountains, just north of Mount Konjakovski. From this medial line of heights that determines the hydrography of Europe, the land slopes more or less regularly to the north-west and south-east. The north-western slope is nowhere of any considerable width; the south-eastern slope is much more extensive. The latter therefore admits of the development of *large* rivers; those of the former are inferior both in length and area of drainage. The drainage of the north-western slope flows either directly into the Arctic and Atlantic Oceans, or into the White Sea, Baltic, and North Sea; that of the south-eastern slope is discharged into the Mediterranean, Black Sea, Sea of Azov, and Caspian Sea.

Of a total area of 3,700,000 square miles, 800,000 square miles are drained *directly* into the Arctic and Atlantic Oceans; 200,000 into the White Sea; 800,000 into the Baltic; 300,000 into the Mediterranean; 900,000 into the Black Sea and Sea of Azov; and 700,000 into the Caspian Sea.

1. **Volcanoes**, Lat *volcanus*, the god of fire.  
2. **Etna**. Last eruption 1838. Since a.o. 476 it has been in eruption sixty times.

3. **Vesuvius**. First eruption on record in A.D. 79, when Herculaneum and Pompeii were destroyed.

4. **Watershed**, or *water-parting*, strictly means the "line of heights" which divides two contiguous river-basins. By a *great watershed* is meant that which broadly divides two sets of river-basins on the opposite slopes of a continent. (See also p. 16).

The rivers of Europe may be grouped into three main *systems*,<sup>1</sup> according as they may flow directly or indirectly into the Arctic and Atlantic Oceans or into the Caspian Sea. The latter forms what is termed a "Continental" system, that is, none of its rivers are connected with the ocean either directly or indirectly.

1. The **Arctic River System** of Europe includes all those rivers that drain the northern slope of the continent. The principal are those

- (1.) *Flowing directly into the Arctic Ocean* :—Petchora, 1,000 miles long.
- (2.) *Flowing into the White Sea* :—Mezen, 480 m. ; Dwina, 700 ; Onega, 380.

2. The **Atlantic River System** of Europe comprises all the rivers that flow over the western and southern slopes of the continent into the Atlantic and its minor seas. The principal are those

- (1.) *Flowing directly into the Atlantic* :—Glommen, 400 miles ; Göta, 70 ; Loire, 600 ; Garonne, 350 ; Minho, 200 ; Douro, 460 ; Tagus, 510 ; Guadiana, 450 ; Guadalquivir, 290 ; Shannon, 224.
- (2.) *Flowing into the Baltic Sea* :—Oder, 550 miles ; Vistula, 630 ; Niemen, 500 ; Dwina, 500 ; Neva, 40 ; Tornea and Dal, each 350.
- (3.) *Flowing into the North Sea* :—Elbe, 600 miles ; Weser, 380 ; Rhine, 760 ; Meuse or Maas, 550 ; Scheldt, 250 ; Thames, 215 ; Trent, 180 ; Ouse, 150 ; Tay, 105.
- (4.) *Flowing into the English Channel* :—Seine, 470 miles.
- (5.) *Flowing into the Bristol Channel* :—Severn, 240 miles.
- (6.) *Flowing into the Mediterranean* :—Jucar, 250 miles ; Ebro, 420 ; Rhone, 530 ; Arno, 150 ; Tiber, 210 ; Po, 450 ; Adige, 250 ; Vardar, 200 ; Struma, 250 ; Maritza, 320.
- (7.) *Flowing into the Black Sea* :—Danube, 1,630 miles ; Dniester, 700 ; Dnieper, 1,200.
- (8.) *Flowing into the Sea of Azov* :—Don, 1,100 miles ; Kuban, 480.

3. The **Caspian River System** of Europe includes those rivers which drain central and eastern Russia and Caucasia, of which the principal are the Volga (2,200 miles), Kuma, and Terek.

If the number of the rivers of Europe that fall *directly* into the Arctic and Atlantic Oceans be compared with the number entering the Baltic, Mediterranean, Black Sea, and Caspian, it will be seen that a greater number discharge their waters into inland seas than into the open ocean. Many of them have their origin in high mountain districts, at considerable elevations above the level of the sea. This is the case with the Rhine and the Rhone, both of which rise in the snow-covered Alps. The rivers of Spain and Portugal, again, derive their waters from the high regions in the interior of the Spanish peninsula. But this is not uniformly the case with rivers, some of which (and those among the most considerable) rise in nearly level plains, and at only a trifling height above the sea. The source of the Volga is in the midst of the Great Plain, at a height of little more than 600 feet.

**Sources of European Rivers.**—The following derive their waters from the *Alps* :—the Rhine, Rhone, Po, and Adige. The *Apennines* contain the sources of the Tiber and the Arno. The *mountains of Germany* give rise to

1. The student would do well to examine a good physical map of Europe (that in the "Training College Atlas" is specially recommended, as being remarkably accurate and distinct), carefully noticing the sources of each river and its tributaries, the course of the main stream and principal affluents, and the limits and mutual relations of the great river-basins

of Europe. The actual extent and relative proportion of land drained by the rivers in each system, may be easily seen if the extreme sources of the rivers named as belonging to each be carefully marked on the map, and connected by lines along the "line of heights" which constitutes the "water-parting" of the system.

the following:—the Danube, Elbe, Oder and Weser. The Dniester and Vistula have their sources among the *Carpathian Mountains*. The *Pyrenees* contain the source of the Garonne. The other *mountain chains and highlands of the Spanish peninsula* give rise to the Ebro, Minho, Douro, Tagus, Guadiana, and Guadalquivir. The *mountains of Central France*, with the adjacent plains of that country, contain the sources of the Loire, Seine, and Meuse. The *Scandinavian Mountains* (Dovrefield, &c.) give rise to the Tornea, Lulea, Pitea, Umea, Indals, Dal, Glommen and Göta. The river Ural rises in the *Ural Mountains*. The river Kuban rises in the *Caucasus range*. The following rivers originate in and drain the *great lowland plain of Europe*:—the Volga, Don, Dnieper, Southern Dwina, Niemen, Northern Dwina, and Petchora.

**LAKES.**—The Lakes of Europe are naturally divided into three main groups—the Alpine, Scandinavian, and the Russian.

*The Alpine Lakes* fringe the central mass of mountains, those on the Swiss side being connected with the Rhine and the Rhone, and those on the Italian side with the Po. Of the former, the principal are the lake of Geneva (230 square miles), through which the Rhone flows, and the lakes of Constance (180), Neuchatel (93), Zurich (34), and Lucerna (40), in the basin of the Rhine. Of the Italian lakes, the largest are Garda (180 square miles), Maggiore (150), and Como (66).

*The Scandinavian Lakes* occur in thousands on the Swedish side of the highland region, the principal being Wener (2,000 square miles), Wetter (840), and Maelar (700); they are also numerous in Norway, where Miosen (300 square miles) is the largest.

*The Russian Lakes* occur mainly in the region between the White Sea and the Gulf of Finland—a region “strewn broadcast with lakes.” The largest of the Russian lakes are Ladoga (6,300 square miles), Onega (3,230), Saima (2,000), Peipus (1,250), Ilmen and Bieloe (each 400 square miles), and Enara (1,200).

In Hungary, between the Danube and its tributary the Drave, lies **Lake Balaton**, or **Flatten See**, with an area of 250 square miles.

The **Caspian Sea**, which lies on the borders of Europe and Asia, is really a vast lake—so great in size as to deserve the name of sea. Its water, moreover, is salt, like that of the open sea. Even small lakes, however, which, like the Caspian, have *no outlet* for their waters, are usually salt. But the water of lakes in general is sweet and fresh. The current which is produced by the issue of a running stream from the lower end of a lake tends to preserve this freshness. A great many lakes (indeed, the greater number) both receive and discharge a running stream.

Most of the European lakes occur in the courses of rivers, the river entering the lake at the upper end of its basin, and re-issuing at its lower extremity. The lake of Geneva, in Switzerland, offers an example of this in the case of the river Rhone, as does the lake of Constance (in the same country) in the case of the river Rhine. The Rhone enters the upper extremity of the lake of Geneva, as the Rhine does that of the lake of Constance; and in each instance the stream re-issues from the lower end of the lake.

The lakes situated in the *south of Europe* occur within mountainous tracts of country, and are hence surrounded by very varied scenery—often in the highest degree beautiful. Those that belong to *northern Europe* lie mostly in the neighbourhood of the Baltic Sea, and are generally within level regions.

## EXAMINATION QUESTIONS.

1. Name the principal mountain ranges of Europe.
2. In what countries are the following mountain chains:—the Apennines, the Balkan Mountains, the Pyrenees, the Sierra Nevada, the Carpathian Mountains, the Dovrefield, and the chain of Pindus? What are their average heights?
3. Name the principal active volcanoes of Europe.
4. What and where are the Mountains of Auvergne?
5. Mark out on the map the general extent of the great lowland plain of Europe, naming the countries that fall within its limits.
6. Point on the map to the following:—the plain of Lombardy, the plain of Languedoc, the plain of Hungary, and the plain of Bohemia.
7. What are the main features in the hydrography of Europe?
8. What is the extent of land drained into (a) the Atlantic and Arctic Oceans, and (b) into the White Sea, Baltic Sea, Mediterranean, Black Sea, and the Caspian Sea?
9. How may the rivers of Europe be classified?
10. What rivers flow into (1) the White Sea, (2) the Arctic Ocean, (3) the Baltic Sea, (4) the Caspian Sea, and (5) the Mediterranean?
11. Which of the rivers of Europe flow into (1) the Black Sea, (2) the Sea of Asov, and (3) the North Sea?
12. What rivers flow into the English Channel?
13. What rivers of Europe have a direct course into the Atlantic Ocean?
14. Which among the rivers of Europe rise in (1) the Alps, (2) the Apennines, and (3) the mountains of Germany?
15. In what mountains do the following rivers have their origin:—the Garonne, Vistula, Tagus, Dniester, Kuban, and Ural?
16. Name the rivers that rise in the great lowland plain of Europe.
17. Name and give the area and elevation of the principal lakes in (1) Russia, (2) Scandinavian peninsula, (3) Switzerland, (4) Italy, and (5) Hungary.
18. What are the extent and elevation of the five principal lakes belonging to the British Islands?
19. By what peculiarity are the waters of the Caspian Sea distinguished?
20. What distinguishing feature (as to situation) is there between the lakes of southern Europe and those that belong to its more northerly latitudes?

**CLIMATE.**—Nearly the whole of Europe falls within the north temperate zone. The small portion lying to the northward of the Arctic Circle does not comprehend more than one-seventeenth part of the entire continent. On the whole, therefore, the climate of Europe is distinguished by its freedom from the extremes of heat and cold to which other divisions of the globe are subject.

There is, however, considerable difference between the climate experienced in the north of Europe, and that which characterises its southerly regions—between the cool atmosphere that is found upon the shores of the Baltic and the coasts of the Atlantic, and the warmth that belongs to the lands bordering the Mediterranean Sea. *There is a gradual diminution of heat in passing from south to north, or from lower to higher latitudes.* In other words, the countries of southern Europe are hot, those of middle Europe moderately warm, its more northerly regions cool, and the extreme north intensely cold. This is in accordance with the general laws by which climate is regulated.

1. *The hottest parts of the globe are those to which the sun is vertical,*<sup>1</sup> and the amount of heat which the sun's rays communicate becomes gradually lessened as they are received in a direction which is more and more slantwise, or oblique.

Hence the greater heat of countries which are situated within the tropics, and which receive the burning rays of the mid-day sun from directly overhead. With every successive parallel of latitude in the temperate zones, the angle at which the rays of the mid-day sun meet the earth becomes further removed from the perpendicular, and the cold is proportionately increased.

1. It is only within the torrid zone that the sun is ever perfectly vertical. The tropics, it will be remembered, mark the limits, north and south of the equator, of the sun's apparent yearly path in the heavens.

2. But the amount of solar heat also varies greatly with the situation of the sun to the north or to the south of the equator—that is, with the sun's *declination*.<sup>1</sup>

At the period of our midsummer, the mid-day sun reaches a much higher place in the heavens than at the opposite season of the year; and hence his rays give to us a greater amount of heat. The sun's declination—which is always marked by his meridian (or mid-day) place in the sky—varies from day to day, reaching its extremes with the sun's passage from the northern to the southern tropic, or from our mid-summer to our mid-winter. So also does the number of hours during which the sun is above or below the horizon—that is, the respective length of day and night—vary from day to day. At all places in the northern hemisphere, the longest day is when the sun has reached his extreme northern declination, or is over the tropic of Cancer; and the shortest day occurs when the sun is at the opposite extreme of south declination. Precisely the reverse is the case in the southern half of the globe. *There*, the tropic of Capricorn is the summer, and the tropic of Cancer the winter, tropic.

3. During the intervals of the sun's passage between the summer and winter tropics, the respective length of the days and nights undergoes a progressive change, and this change is more marked in high than in low latitudes—that is, it becomes greater as we recede further from the neighbourhood of the equator towards the poles.

While the sun is passing from the tropic of Cancer towards the southern hemisphere, the *days* (that is, the hours of daylight, or the period during which the sun is above the horizon),<sup>2</sup> are decreasing in length at all places within the northern half of the globe, and the nights (or hours of darkness) are increasing in duration. With the returning course of the sun from the line of the winter tropic toward the northern sky, the days (at places within the northern hemisphere) continually increase in length, and the hours of darkness undergo a corresponding decrease.

4. The long days and short nights of the northern summer, and the reverse conditions (long nights and short days) of the opposite season, are a material element in the climates of European countries, but are of less importance in the extreme south of Europe than in its higher latitudes, for *there* the difference between the extreme length of the long days of summer and the short days of winter is much less than it is further north.

This difference becomes greater with each succeeding degree of latitude. At Naples or at Lisbon the difference between the length of the longest and shortest days is not more than 6 hours; at London it amounts to nearly 9 hours. In the Shetland Islands the difference becomes increased to nearly 13 hours; and the same at Stockholm and St. Petersburg, which are nearly in the same latitude as the Shetland Islands. Still further north, under the line of the Arctic Circle, the longest day and the longest night are each of exactly 24 hours' duration. Beyond the Arctic Circle the difference becomes yet greater, the summer sun remaining continuously above the horizon for a

1. *Declination* is the angular distance of the sun's place in the heavens from the line of the equator, and is expressed (like latitude) in degrees, minutes, and seconds. It corresponds, in astronomy, to the word *latitude* in reference to places upon the earth's surface. The greatest solar declination is 23½ degrees (or more exactly, 23° 28'), since, when the sun has reached that distance upon either limit of the torrid zone, he returns on his course towards the line of the equator and the opposite tropic. At its ex-

trême north declination, the sun is vertically over the tropic of Cancer; at the like place, in the southern half of its course, over the tropic of Capricorn. The former constitutes, to the inhabitants of the northern half of the globe, the *summer* tropic; the latter, the *winter* tropic.

2. The horizon is the line marking—in an open plain, or on the seashore, where the view is unimpeded by any intervening object—the furthest limit of vision, where the sky appears to meet, and rest upon, the earth or the sea.



period of several successive days, while during the winter the sun does not become visible (remaining beneath the horizon) for a correspondent time. Summer in these high latitudes embraces therefore a brief period of continuous daylight, while the opposite season includes a period of corresponding darkness.

5. During the whole time that the sun is above the horizon at any place, his rays communicate heat to the earth.

(1.) *In the south of Europe*, where (so far as this portion of the globe is concerned) there is least difference between the length of the days and nights throughout the year, the solar heat is more equally distributed, and the difference between the summer and winter temperatures is accordingly less marked than is the case further north.

(2.) *In the middle of Europe* it gradually becomes more considerable, and the opposite seasons of summer and winter present more striking contrasts of heat and cold. The intervening seasons of spring and autumn, however, make the transition from the one extreme to the other gradual, and indeed, measured merely from day to day, almost imperceptible.

(3.) *In the north of Europe*, the summer becomes a brief period of great heat (due to the long-continued presence of the sun above the horizon), the winter a prolonged and more definitely marked season of cold. The intervening seasons—spring and autumn—are periods of more rapid transition from heat to cold, or the reverse; as the long days of summer approach, the heat rapidly increases, and the icy covering of the ground gives place with startling rapidity to the verdure which accompanies the warmth of prolonged sunshine. Summer as quickly passes, with returning periods of lengthening darkness, into the gloom of an Arctic winter.

(a.) *The south of Europe* is thus a region of comparatively equable temperature, with seasons which are less distinguished by the heat and cold of summer and winter, or the intervening terms of spring and autumn, than by the alternate recurrence of periods of rain and drought.

(b.) The countries of *middle and western Europe* enjoy a climate in which the summer and winter are marked by greater contrasts of heat and cold than is the case further south, but in which the spring and autumn constitute seasons of gradual transition, and soften the passage from the one extreme to the other.

(c.) The countries of *northern* (and also of *eastern*) *Europe* exhibit, between their summer and winter, differences which are yet more strongly contrasted. Spring and autumn are there of brief duration; towards the extreme north, indeed, they can hardly be said to exist. The year is divided into a short summer and a long winter. The former is, for a brief time, a period of great heat, as the latter is one of intense cold. *The extremes of difference increase with the latitude*, until, beyond the Arctic Circle, the year consists of a long winter night, alternating with a short season of continuous daylight and intense heat.

6. The proximity of the ocean has a powerful effect upon climate.

(1.) Thus the countries of *Western Europe* enjoy conditions of climate which possess many advantages over those belonging to the east of Europe in similar latitudes. They have a more equable distribution of heat throughout the year. That is, they enjoy milder summers and more temperate winters than is the case in Eastern Europe. This is a consequence of their position relatively to the Atlantic Ocean.

The effect produced by large bodies of water upon climate is always to equalise it. Water preserves, under all circumstances, a more equable temperature than land. The sea never becomes so hot, under the influence of mid-day heat, as the land does; and, when the heating influence is withdrawn (as at night), it never becomes so cold. In like manner, the heat of summer and the cold of winter produce less extreme effects upon the waters of the ocean than they do upon the large expanses of land which belong to either continent. Countries situated near the ocean share in the advantages of this more equable distribution of the solar heat. The vapours that float over the Atlantic Ocean communicate their moderate warmth (and also their moisture) to the atmosphere of the adjacent lands. The generally mild winters of the British Islands, and also those of the Norwegian coast, are due to this cause.

(2.) The *eastern parts of Europe*, on the other hand, are far removed from oceanic influences, and are, moreover, open and unsheltered. No mountain chains protect them from the piercing colds of northerly winds. Hence their summer is one of intense heat, and their winter a season of still intenser cold. Moscow and Edinburgh are situated in nearly the same latitude, but they possess widely different climates.

7. The comparative elevation of the ground has a great deal to do with climate, for, as we rise above the average level of the earth's surface, the air becomes progressively colder.

This is found on climbing to the top of any hill, or even in reaching the higher portions of any moderately-elevated land. The tops of very high mountains are nearly always covered with unmelting snow—a consequence of the excessive cold of the air in those elevated regions. *The higher portions of mountainous countries are therefore exposed to greater cold than their lower plains.* High plateaux, or table-lands, for a like reason, are subject to extremes of temperature.

8. The climates of countries upon opposite sides of the same mountain chain are often widely different.

The Alps, in the south of Europe, are an example. Their slope, on the side of Switzerland, is to the northward; upon that of Italy, to the southward. They serve in some degree to shelter Italy from the cold winds of the north.

**Rainfall.**—A greater quantity of *rain* falls in the south of Europe than in its middle portions, and more in its middle latitudes than further north.

Warm countries, in general, have more rain than cold countries. More rain falls also in the west of Europe than in the east—a consequence of its proximity to the Atlantic Ocean, the winds blowing from which are abundantly charged with moisture. Along the whole western side of Europe (including the British Islands), westerly winds are generally accompanied by rain, while easterly winds—blowing from over large tracts of land—are dry.<sup>1</sup>

The average number of days in the year upon which rain occurs is fewest in the south of Europe, and increases towards the north. There are more rainy days in the year in the west of Europe than in any other portion of its extent, and there is also a more generally moist atmosphere.

1. All the moisture contained in the air, and precipitated upon the earth in the form of rain, hail, snow, &c., is originally derived (by the process called *evaporation*, that is, the conversion of water or any fluid into vapour) from the sea, or else from surfaces of inland water.

Countries near large bodies of water are hence more likely to possess a moist atmosphere than countries lying far inland. The winds carry the moist vapours of the sea over the adjacent lands, where they become condensed, and are discharged in the form of rain.

**NATURAL PRODUCTIONS.**—The natural productions of the earth form three great classes—*mineral, vegetable, and animal.*

1. To the first belong the different metals (gold, silver, copper, iron, &c.), and the various mineral substances, including coal, salt, the various earths, as well as marbles, building-stones, and slates.

2. The second class includes all the productions of the vegetable world, from the largest trees of the forest to flowers and plants of the minutest size, as mosses and lichens.

3. The third embraces the infinite varieties of animal life—the inhabitants of the land, sea, and air alike.

In the last division, the lowest place is occupied by the insect world; next in order come fishes, and then, successively, reptiles, birds, and the various land animals, the highest of all being man himself.

It is the characteristic of Europe to possess among its natural productions an unusually large proportion of such minerals, plants, and members of the animal kingdom as are most useful to civilised man. Some of the plants and animals that are now abundant in Europe have been brought from other parts of the globe, but a large proportion are native to its soil. Other divisions of the earth possess in greater quantity the precious metals, display a vastly richer abundance of fruits and flowers, with trees of more luxuriant growth and forests of wider expanse; or are richer in the various tenants of the wilderness and the air, in the size and powers of their wild animals, and the brilliant plumage of the feathered tribes. *But no other part of the earth equals Europe in the abundant possession of what is most capable of supplying, with the due exercise of industry, the wants of civilised man.*

**I. Minerals.**—Europe is richly supplied with the more useful minerals and metals—*coal, iron, &c.*—and also produces considerable quantities of the *precious metals.*

Coal is most abundant in Great Britain and Belgium, and large quantities are also produced in France, Germany, Austria, and Russia.

Iron is found in most European countries, but is produced in larger quantities in Great Britain than in all the other countries—Belgium, France, Germany, Sweden, Austria, &c.—taken together.

Salt is obtained from *mines* in Austria, and from *brine-springs* and *mines* of rock salt in England, and by *evaporation* on the coasts of France, Italy, Spain and Portugal, &c.

Copper, lead, tin, zinc, and other metals and minerals are found in various parts of Europe. Of the precious metals, gold is found in the Ural Mountains in Russia, and in Hungary; and silver in Germany, Austria, Italy, and Scandinavia.

**II. Plants.**—All the food-plants that are characteristic of the temperate zone thrive in this division of the globe.

1. *Wheat, barley, rye, oats,* are grown abundantly over the larger portion of Europe, and *maize* (or Indian corn) in the more southerly division of the continent.

2. Among fruits, the *apple, pear, plum, cherry, currant,* and *gooseberry* belong to the middle latitudes of Europe; the *vine* to its more south-

wardly regions ; the *orange*, *lemon*, *citron*, and *fig* to the shores of the Mediterranean.

3. Of trees, the countries lying to the south of the Alps and the Pyrenees are distinguished by the abundance of evergreens ; while the forest-growth of middle and northern Europe is chiefly *deciduous*,<sup>1</sup> embracing such trees as the *oak*, *ash*, *beech*, *elm*, *larch*, *willow*, *alder*, *maple*, *sycamore*, and the various *pin*es and *firs*.

**III. Animals.**—The animals of Europe may be divided into six great classes as follows :—

1. **Wild Animals.**—Many of the wild animals which were once native to Europe have disappeared, while others have greatly diminished in number.

The *wild boar* and the *bear*, as well as the *wolf*, were formerly common in the forests of the British Islands, but have been wholly exterminated thence. The forests of Germany, and the wooded tracts that skirt the Alps and the Pyrenees, still harbour, however, the two former ; and the wolf is yet abundant in many parts of the continent, as in the forests of Russia, France, and Germany. The *wild ox* still exists in the forests of Russia. The *red-deer*, the *fallow-deer*, and others of the same tribe, belong to the lower latitudes of middle Europe. The *chamois* and the *ibex* (animals of the goat kind) are native to the high mountain-region of the Alps, but they have become scarce under the continued pursuit of the hunter, and the latter of these two animals is almost extinct.

2. **Domestic Animals.**—The vast number of domestic cattle that are reared in Europe—either as the food of man, or for various other uses—is the most striking feature in the zoology of Europe.

The *sheep*, *ox*, *pig*, and *goat*, the *horse*, *ass*, and *dog*, abound in every part of Europe ; most of them are, indeed, the uniform companions of man, wheresoever his wanderings extend. The *reindeer* supplies to the inhabitants of the extreme north of Europe (Lapland) the place of other domestic quadrupeds.

3. **Birds.**—The variety of birds is great in nearly every European country, except the extreme north.

The web-footed tribes (*geese*, *ducks*, &c.) are most numerous in high latitudes. The *stork*, the *crane*, the *heron*, the *pelican*, the *spoonbill*, and the *flamingo*, belong to the west and the south of Europe. The *vulture* and *eagle* tribe are most numerous in the high mountain-region of the south—that is, the Alps and Pyrenees. The *owl* is found in nearly every part of the continent.

4. **Reptiles.**—Europe is singularly free from venomous reptiles.

*Lizards* are common in the countries that border on the Mediterranean, but are perfectly harmless. The *chameleon* is found in Spain.

5. **Fish.**—Fish of nearly every variety abound in the seas and rivers of Europe, and many of them are extensively used as food of man.

The fisheries of the Mediterranean, Black, Baltic, and Caspian Seas

1. Deciduous trees are those which cast their leaves annually (from the Latin *decidere*, to fall).

are all highly valuable. The *tunny*, which is the largest of edible fish, is found in the Mediterranean.

The seas that surround the British Islands contain a vast abundance of such fish as the *cod*, *herring*, *mackerel*, *turbot*, and *pilchard*, besides the *crab*, *lobster*, *prawn*, and many others. The *salmon* abounds in the rivers of northern and western Europe, as it also does in the Volga and other streams of eastern Russia.

6. **Insects.**—Of insects, the kinds that are annoying and hurtful to man are, happily, comparatively scarce in this portion of the globe.

The most useful member of the insect tribe—the common *honey-bee*—is reared in most European countries. The *silkworm* is numerously reared in the south of Europe—in Italy, Spain, Switzerland, and the south of France. The *scorpion* is found in the south of Europe. The insects which are familiarly known as occurring in our own country (and which are more or less common throughout the globe), as *flies*, &c., do not require to be specially mentioned.

**INHABITANTS.**—The population of Europe—amounting to a total of about 350,000,000<sup>1</sup>—consists, for the most part, of what is known distinctively as the *Caucasian*, *Indo-Germanic*, or *Aryan* race. Nine-tenths of the whole belong to this stock of nations.

There are differences amongst them, the result of diversity of climate, and perhaps of other causes. The nations of southern Europe—the Spaniards, Portuguese, Italians, and Greeks—are distinguished by their darker skin and their generally slender frame, from the people who are native to the middle and northerly portions of the continent. Robust frames, fair complexions, light eyes and hair, are among the distinguishing marks of the people of Middle and Northern Europe.

Four leading divisions of the Caucasian family are marked—the Celtic, the Germanic or Teutonic, the Romanic or Greek-Latin, and the Slavonian.

1. The **Celtic race** is now almost limited (as a pure race) to Wales, Ireland, the Highlands of Scotland, and Brittany. The Celtic peoples formerly inhabited the whole of Western Europe from Spain to Denmark, but were gradually superseded by the Germanic or Teutonic people.

2. The **Germanic or Teutonic race** is spread over the middle, north-western, and many of the western countries of Europe, and form the predominant people in Germany, Norway, Sweden, Denmark, Holland, Belgium, and Great Britain.

3. The **Romanic or Greek-Latin race** is not by any means as pure as any of the other races, and is probably an admixture of the aboriginal Celtic race, with Roman and German invaders. The Romanic group occupies Spain, Portugal, France (except Brittany), Italy, Roumania, and Greece.

4. The **Slavonic race** occupies nearly all eastern Europe, predominating in Russia, Poland, Bohemia, Servia, and Bulgaria.

1. The density of population in the different countries of Europe depends not so much on a natural capacity (by reason of fertile soil and genial climate) of supporting a large population, as on the energy and industry of the inhabitants. Thus some countries, like Turkey, Spain, &c., although naturally fertile and capable of sup-

porting a dense population, are yet inferior, as regards density of population, to other countries like Holland, Belgium, and parts of England and Germany, which are not naturally fertile. The absolute and average population of each country in Europe is shown in the table on p. 37.

Besides the above races, to which most of the peoples of Europe belong, there are several minor branches of the Mongolian race, the principal being the *Turks* in Turkey, the *Magyars* in Hungary, the *Fins* and *Laplanders* in the north of Europe, the *Samoyedes* along the north-eastern shores of the continent, and the *Kalmucks* in the Steppes of south-east Russia.

Two other distinct nations, the Jews and the Gipsies, are found scattered all over Europe. The *Jews* are of the Caucasian race, and in the Middle Ages were cruelly persecuted in almost every country in Europe, except Poland. Much ill-will against the Jews still exists, and within recent years it has given rise to disgraceful persecutions in Russia, Roumania, and Germany. The *Gipsies* are a wandering race; their origin is unknown.

**LANGUAGE.**—The languages of Europe, with the exception of the Turkish and other Turanian dialects, belong to the *Aryan* or *Indo-European* family, and may be classed under four principal headings, broadly corresponding with the four great races of the continent, viz., the Celtic, the Teutonic, the Latin or Greek-Latin, and the Slavonic.

1. Dialects of the *Celtic* language are still spoken in the west of Ireland, the north and west of Scotland, Isle of Man, Wales, and Brittany.

2. The *Teutonic* family comprises the English, Lowland Scotch, Norwegian, Swedish, Danish, Dutch, and German languages.

3. The *Greek-Latin* or Romanic languages are spoken in France, Spain, Portugal, Italy, Roumania, and Greece.

4. The *Slavonic* language is spoken in Russia, Servia, Bulgaria, Bohemia, Moravia, and Poland.

**RELIGION.**—Nearly all the nations of Europe profess Christianity, in one or other of its three forms. The Protestants predominate in the Teutonic countries; Roman Catholics in the Romanic countries, except Greece; and the Greek Church in the Slavonic countries and Greece. The Turks profess *Mohammedanism*, while the Samoyedes and Lapps are *heathens*. The orthodox Jews profess *Judaism*, the Russian and Galician Jews are sunk in superstition, while many American Jews are advanced agnostics.

\* \* Of the 350 millions of Europeans, 150 millions are Roman Catholics, 80 millions belong to the Greek Church, 75 millions are Protestants, while 10 millions are Mohammedans or heathens, and 7 millions are Jews,<sup>1</sup> Gipsies, &c.

**EDUCATION.**—All the great nations of Europe are more or less advanced in education, and the higher classes of even the most deficient in national culture are generally well educated. Schools, colleges, and universities are found in every European State, and are well attended.

As regards general education, the Germanic peoples rank first, the Romanic nations second, while the mass of the Slavonic peoples are almost totally illiterate. The average number of the population unable to read and write in the various countries is estimated to be—in England, 20; France, 35; Italy, 64; Hungary, 85; and Russia, 88 per cent.

**GOVERNMENT.**—The government of every State in Europe, except France and Switzerland, is *monarchical* in form, and is *despotic*

1. There are probably over 8,000,000 Jews in the world, nearly 7,000,000 of whom are in Europe (Russia, 4,000,000; Austria-Hungary, 1,600,000; Germany, 800,000; Roumania, 260,000; Turkey, 100,000; Holland, 80,000; France, 76,000; England, 65,000; Italy, 40,000).

in Russia and Turkey, but *limited* in the United Kingdom and other countries. France and Switzerland (and the small States of San Marino and Andorra) are *republics*.

**POLITICAL DIVISIONS.**—Europe is *politically* divided into Four Empires: Russia, Germany, Austria-Hungary, and Turkey.

**Eleven Kingdoms:** Great Britain and Ireland, Sweden and Norway, Denmark, Holland, Belgium, Portugal, Spain, Italy, Greece, Roumania, and Servia.

**Two Republics:** France and Switzerland (and the minor protected republics of San Marino and Andorra).

**Four Principalities:** Montenegro, and the minor principalities of Luxemburg, Monaco, and Liechtenstein.

The countries of Europe may be also arranged according to their "rank" or power in the following order:—

1. Great Britain, Germany, France, Austria-Hungary, Russia, and Italy. These are the "Six Great Powers" of Europe.
2. Sweden and Norway, Spain.
3. Turkey, Belgium, Holland, Denmark, Portugal, Switzerland, Greece, Roumania, Servia, and Montenegro.

The following is a list of the principal countries of Europe, together with their area and population:—

Countries.	Area in sq. miles.	Population.	Density per sq. m.
Great Britain and Ireland . . . . .	120,000	38,000,000	316
France . . . . .	204,000	38,200,000	187
Belgium . . . . .	11,370	6,093,000	535
Holland . . . . .	12,640	4,550,000	360
Switzerland . . . . .	15,980	2,917,000	183
German Empire . . . . .	211,000	46,855,000	221
Austria-Hungary . . . . .	240,900	41,171,000	171
Denmark . . . . .	14,000	2,185,000	155
Norway . . . . .	123,000	2,000,000	16
Sweden . . . . .	170,980	4,774,000	28
Russia . . . . .	2,095,000	95,870,000	45
Turkey . . . . .	68,850	4,790,000	75
Montenegro . . . . .	3,480	220,000	63
Servia . . . . .	19,000	2,096,000	110
Roumania . . . . .	48,000	5,550,000	115
Greece . . . . .	25,000	2,187,000	87
Italy . . . . .	114,400	30,947,000	270
Spain . . . . .	197,670	17,550,000	88
Portugal . . . . .	34,000	4,708,000	137

\*.\* The area and population are given in round numbers according to the latest returns. The last column in black type shows the density, or average number, of inhabitants per square mile.

## EXAMINATION QUESTIONS.

1. What is the distinguishing characteristic of the climate of Europe?
2. Compare the kinds of climate experienced in the south, middle, and north of Europe.
3. Why are countries within the tropics hotter than other parts of the world?
4. Within what zone does the greater part of Europe fall?
5. Why do countries receive less direct heat from the sun in proportion as they are further removed from the equator?
6. What is meant by the sun's declination; and how does it affect the respective lengths of the days and nights in either hemisphere.
7. In what way does this affect the climate of the countries of northern Europe?
8. In what portion of Europe is the transition between the different seasons (a) most gradual, (b) most strongly marked?
9. What are the chief climatic differences that belong to the countries of (a) southern Europe, (b) western Europe, and (c) those situated towards its eastern limits?
10. Explain the kind of influence which the sea generally exerts upon climate.
11. Moscow and Edinburgh are two cities situated at nearly the same distance from the equator, but they possess very different climates. How do you account for this?
12. In what way do mountain chains and plateaux affect climate?
13. Switzerland and Italy—which lie respectively to the north and south of the Alps—have very different climates. How do you account for this?
14. In what parts of Europe is rain most abundant?
15. What three great classes of objects do the natural productions of the earth include?
16. By what characteristic is Europe distinguished in regard to its natural productions?
17. In what countries of Europe do the following metals occur:—gold, silver, and iron?
18. In what countries of Europe do coal and salt occur?
19. Among the various food-plants, name some of the *grasses* that are most abundantly cultivated in Europe.
20. Of *fruits*, name those that characterize (a) its middle latitudes, and (b) its southern regions.
21. What is the difference between the trees that belong to the countries situated on the Mediterranean shores, and those that are native to middle and northern Europe?
22. What *wild animals*, formerly native to the British Islands, have been exterminated thence?
23. In what countries of Europe is the wolf still found?
24. Name the *domestic animals* of Europe.
25. In what part of Europe are the *reindeer*, *chamois*, and *fox* found?
26. Name some of the *birds* that are characteristic of Europe, and say to what regions they more particularly belong.
27. The *shales* that are found in the seas and rivers of Europe are of great commercial value. Name some of those that are found in the British seas.
28. Of *insects*, there are two which are extensively reared in Europe, and which serve valuable purposes to man. What are they?
29. To what (in round numbers) does the population of Europe amount?
30. To what race of mankind does the majority of the inhabitants of Europe belong?
31. What distinction (in external appearance) is there between the nations of southern Europe, and those of its middle and northern regions?
32. Name the four great divisions of the European family of nations and the countries they occupy?
33. Compare the countries of Europe in regard to density of population.
34. Classify the *languages* spoken in Europe.
35. What forms of *religion* prevail in Europe?
36. Mention some particulars relative to (a) *education*, and (b) *government* of European States.
37. Write out a complete list of the countries of Europe.

## THE BRITISH ISLES.

THE BRITISH ISLES consist of Great Britain, Ireland, and numerous smaller adjacent islands, situated in the Atlantic Ocean, off the western side of the European continent.

1. **Great Britain** consists of England, Wales, and Scotland, and is the largest island in Europe, being 600 miles in length, and having an area of nearly 89,000 square miles.

2. **Ireland** lies to the west of Great Britain, and is divided from it by the Irish Sea. Great Britain is nearly *three* times the size of Ireland, the area of which is 32,500 square miles.

3. Of the numerous islands and islets adjoining Great Britain and Ireland



the principal are the *Isle of Wight*, on the south; the *Orkney and Shetland Islands*, on the north; the *Hebrides*, off the west coast of Scotland; *Anglesey* and the *Isle of Man*, in the Irish Sea; and *Achil Island* and the *Aran Islands*, off the west coast of Ireland.

England, Wales, Scotland, Ireland, and the adjacent islands, constitute politically the **United Kingdom of Great Britain and Ireland**.

Wales, Scotland, and Ireland were formerly distinct countries from England. The conquest of Ireland commenced in 1170, and virtually ended when Limerick was surrendered in 1691. Wales was conquered in 1282, and formally annexed in 1536. The crowns of England and Scotland were united in 1603; in 1707 England and Scotland were united under the same Parliament; and in 1801 the Parliaments of Great Britain and Ireland were united, hence the name, "The United Kingdom of Great Britain and Ireland."

The United Kingdom of Great Britain and Ireland, and its numerous colonies and foreign possessions in all parts of the world, together form the **British Empire**.

The area of the British Empire is upwards of 11,000,000 square miles, or about one-sixth of all the land of the globe, while the population numbers 366,000,000, or about one-fifth of the total inhabitants of the world. Our Indian Empire alone has a population of more than 286,000,000. The extension and consolidation of the British Empire is without a parallel in the history of the world. Inferior to the Chinese Empire<sup>1</sup> as regards population, and about equal to that of Russia in extent, it is vastly superior to both in wealth, influence, and power.

## ENGLAND AND WALES.

ENGLAND<sup>2</sup> AND WALES, which together form the southern division of Great Britain, constitute by far the most important portion of the British Islands.

Although, in times long past, Wales was a distinct country from England, yet the two are now so inseparably connected, and have been so long under the same government, that it is most convenient to describe them under one head, and to speak of them as a single country.

England makes nearer approach to the mainland of Europe than any other portion of the British Islands. The Strait of Dover, which divides the shores of England from those of France, is only twenty-one miles across.

**BOUNDARIES.**—ENGLAND is bounded on the north by Scotland; on the east by the North Sea;<sup>3</sup> on the south by the English Channel;<sup>4</sup> on the west by the Irish Sea,<sup>5</sup> the Principality of Wales, and the Atlantic Ocean.

1. Estimated population, 400 millions.

2. England, i. e., *Angle-land*, the land of the "Angles," the most numerous of the Saxon invaders of Britain. Anciently *Abiton*, so called from the white cliffs of Kent. Of the "Alps."

3. The North Sea is 700 miles long, 430 miles in its greatest breadth, and has an area of 270,000 square miles. It is deep in the north between Scotland and Norway, but shallow between England and Holland. There are numerous shoals and sandbanks, the largest being the *Dopper Bank*, 200 miles long. Between the Kentish coast and the *Goodwin Sands* is the

roadstead called the "Downs." Various kinds of fish, cod, herring, mackerel, &c., are abundant, and the fisheries are extremely valuable.

4. In the English Channel (Fr. *Le Manche*) the depth increases from 200 feet off Beachy Head to 800 off Land's End. The tidal wave increases in height as it proceeds eastwards, being 16 feet at Plymouth, 21 at Brighton, and sometimes 60 in the Bay of St. Malo on the French coast.

5. Irish Sea, depth between 200 and 400 feet, communicates with the Atlantic on the north by North Channel, and on the south by St. George's Channel. Greatest breadth, 130 miles.

WALES is enclosed on three sides—the *north*, *west*, and *south*—by the Irish Sea, St. George's Channel,<sup>1</sup> and the Bristol Channel; on the *east* it adjoins England.

England is divided from

Scotland by the Tweed, the Cheviot Hills, and the Solway Firth.

Ireland by the Irish Sea and St. George's Channel.

France by the English Channel and the Strait of Dover.

Belgium, Holland, and Germany by the North Sea.

**EXTENT.**—England embraces an area of 50,823 square miles, and Wales, 7,363. Total area, 58,186 square miles. Taken together, England and Wales are but a small country, equal in magnitude to scarcely more than a nine-hundredth part of the lands upon the earth's surface.

The *greatest length* of England, from Berwick to the Lizard, is 423 miles.

The *mean length*, along the meridian of 2° West, is 360 miles.

The *greatest breadth*, from Lowestoft Ness to Land's End, is 364 miles.

The *least breadth*, from the Tyne to the Solway Firth, is 60 miles.

The *average breadth* south of the Wash is 200 miles; north, 120 miles.

England is triangular in shape, the south coast being the base and Berwick-on-Tweed the apex.

**COASTS.**—The *western* coasts of England are more irregular and elevated, and exhibit a greater number of capes and inlets, than either the *southern* or the *eastern* coasts.<sup>2</sup>

A glance at the map of England will show the contrast between the irregular outline of the west coast and the rounded "flowing" form of the east coast. About a third of the former and a half of the latter consist of cliffs, which are most elevated in Cornwall and Wales. Where the coast is low, it is generally sandy.

1. **Capes.**—*On the east*, Flamborough<sup>3</sup> Head, Spurn Head, Lowestoft Ness, the Naze, and the North Foreland. *On the south*, the South Foreland, Dungeness,<sup>4</sup> Beachy Head,<sup>5</sup> Selsea Bill, St. Catherine's Point, the Needles, St. Alban's Head, Portland Bill, Start Point, Bolt Head, and the Lizard. *On the west*, the Land's End, Hartland Point, Worms Head, St. David's Head, Great Orme's Head,<sup>6</sup> Point of Aire, Formby Point, and St. Bees Head.

Flamborough Head, on the Yorkshire coast, is 214 feet high.

From the South Foreland (375 feet) the French coast may be seen.

Beachy Head (564 feet) is the loftiest headland on the south coast.

Great Orme's Head (673 feet) is by far the loftiest in England and Wales.

Lowestoft Ness (119 feet) is the *most easterly* point of England. The Lizard<sup>7</sup> is the *most southerly*, and Land's End the *most westerly*, point; both are in the county of Cornwall.

1. St. George's Channel—80 miles wide between Carnore Point and St. David's Head.

2. The western and south-western coasts possess several magnificent natural harbours. The south-eastern and eastern coasts are rather deficient in this respect.

3. Flamborough, probably a "tower or camp of refuge," from A.-S. *flam*, a fugitive; or from the *flames* or *beacon-fires* formerly lit on this headland.

4. Dungeness, *danger-ness*, so called from the numerous shipwrecks off this point; *ness* = nose or headland.

5. Beachy Head, corrupted form of Fr. *beau-chauf*.

6. Great Orme's Head, probably after the Saxon chief's name *Worm* or *Orm*, lit. a sea-serpent.

7. Lizard, Celtic *ard*, a height; the high cape or fort.

**2. Inlets.**—*On the east coast*, the Humber, the Wash, and the mouth of the Thames. *On the south coast*, Portsmouth Harbour, Southampton Water, Weymouth Bay, Tor Bay, Plymouth Sound, Falmouth Harbour, and Mount's Bay. *On the west coast*, the Solway Firth, Morecambe Bay, Cardigan Bay, Milford Haven, and the Bristol Channel, which last includes Carmarthen Bay, Swansea Bay, and Barnstaple Bay.

(1.) The **Humber**, 38 miles in length, is the estuary<sup>1</sup> of the *Ouse* and *Trent*, and is navigable for the largest vessels to Hull.

(2.) The **Wash** receives the drainage of the "Fen" country, and is shallow throughout.

(3.) **Portsmouth Harbour** is one of the finest harbours in the world.

(4.) **Plymouth Sound** is protected by an artificial breakwater a mile long.

(5.) In the **Bristol Channel** the tide advances rapidly, and rushes up the estuary of the Severn as a "bore" or head of water, rising at Chepstow to a height of 45 feet.

(6.) **Milford Haven** is the finest natural harbour in England, and is capable of holding all the British navy at one time.

(7.) The **Solway Firth** is noted for its valuable salmon fisheries.

**3. Straits and Roadsteads.**—*On the east*, Yarmouth Roads, the Downs, Strait of Dover. *On the south*, Spithead,<sup>2</sup> Solent, and Portland Roads. *On the west*, the Menai Strait.

(1.) The **Downs**, between the Goodwin Sands and the Kentish coast, form the largest natural "harbour of refuge" in the world.

(2.) **Spithead** and the **Solent** are the eastern and western portions of the channel that separates the Isle of Wight from the mainland.

(3.) The **Menai Strait**, between Anglesey and Carnarvonshire, is crossed by a suspension bridge and a tubular railway bridge.

**ISLANDS.**—The principal are:—Holy Island,<sup>4</sup> Farne Islands, Coquet, Sheppey,<sup>5</sup> Thanet, Isle of Wight, Scilly Isles,<sup>6</sup> Lundy, Anglesey,<sup>7</sup> Holyhead, Bardsey, Isle of Man,<sup>8</sup> and Walney.

1. **Holy Island** and **Holyhead** are islands only at high tide. The latter is connected with Anglesey by two embankments.

2. **Anglesey** is separated from the adjoining mainland by the Menai Strait.

3. The former wide passages between **Thanet** and **Sheppey** and the mainland are now almost filled up.

4. The **Isle of Wight**, the "garden of England," is extremely beautiful and fertile, and is separated from the mainland by Spithead and the Solent. Highest elevations, *St. Catherine's Hill*, 781 feet; *Boniface Down*, 787 feet.

5. The **Scilly Isles**, 30 miles south-west of Land's End, are 145 in number, of which 6 only are inhabited. Largest island, *St. Mary*, 10 miles round.

6. The **Isle of Man**, in the Irish Sea, is nearly midway between England, Scotland, and Ireland. Hilly; highest point, *Snaefell*, 2,004 feet above the

1. An estuary is a narrow arm of the sea, such as is often formed at the mouth of a river. The word estuary is from the Latin *ostuarium*.

2. By a roadstead, or road, is meant a natural "harbour of refuge" where vessels may ride at anchor safely.

3. Spithead, Ger. *spitze*, a beak.

4. Holy Island, from a celebrated monastery

founded by Oswald of Northumbria in 635. Also called *Lindisfarne*.

5. Sheppey, Sax. *scæp*, a sheep, and *ey*, an island—"island of sheep."

6. Scilly Isles, anciently called the *Cassiterides* or Tin Islands.

7. Anglesey, *ea*, an island, and *Angles*, English. Formerly called *Mona*.

8. Isle of Man, anciently *Mona*, or *Monapia*.

sea. Valuable lead mines at Foxdale and Laxey. Much agricultural produce exported. Area, 227 square miles; population, 54,000. *Douglas* is the largest town and now the seat of government. *Casle town*, the former capital, is a very ancient city.

7. The Channel Islands—*Jersey*, *Guernsey*, *Alderney*, and *Sark*—off the coast of Normandy, also belong to England. The climate is warm and moist, and the soil fertile. Alderney and Guernsey are celebrated for their fine breed of cows. Total area, 75 square miles; population, 90,000.

\* \* The Isle of Man and the Channel Islands form dependencies of the British Crown, but are not included within any of the counties. Their legislatures—the *Tynwald* in the Isle of Man and the *States* in Jersey and Guernsey—are independent, the governors only being appointed by the Crown. In the Channel Islands, the people speak the old Norman dialect, while French is the official language; in the Isle of Man, the laws are still promulgated in Manx, a Celtic-Norwegian dialect.

**MOUNTAINS.**—England exhibits generally a gently-sloping or undulating surface, which, however, rises in some places into lofty hills. Wales is chiefly mountainous.

The high grounds of England and Wales lie principally upon the western side of the island, forming a succession of elevated regions which stretch nearly from the borders of Scotland to the Land's End, and are seldom far removed from the western coasts. They are naturally divisible into three sections or systems, viz., the *Northern*, the *Cambrian*, and the *Devonian*.

1. The Northern System includes the Cheviot Hills, Pennine Range, and the Cumbrian Group.

(a.) The Cheviot Hills are on the borders of England and Scotland. *Cheviot Peak*, in Northumberland, is 2,676 feet above the sea.

(b.) The Pennine<sup>1</sup> Range extends from the Cheviot Hills to the Peak (in the county of Derby), nearly along the dividing line between the six northern counties, and constitutes the most continuous elevated tract in England. The highest points are:—*Cross Fell*,<sup>2</sup> 2,892 feet, in Cumberland, and *Wharfedale*, 2,414 feet, *Ingleborough*, 2,373 feet, and *Pen-y-gant*, 2,273 feet, in Yorkshire.

(c.) The Cumbrian<sup>3</sup> Mountains form a group in the counties of Cumberland, Westmoreland, and northern Lancashire, near the coast of the Irish Sea. They contain the highest elevation in England:—*Saw Fell*, situated in the centre of the group, and reaching 3,208 feet above the level of the sea; *Skiddaw*, 3,054 feet, and *Helvellyn*, 3,118 feet, in the same group. The Cumbrian Group encloses the picturesque "English Lake District."

2. The Cambrian<sup>4</sup> system includes all those mountains situated between the basin of the Severn and the Irish Sea, and spread over the greater part of the surface of Wales, reaching in their highest point a greater elevation than any of the English mountains.

*Snowdon*,<sup>5</sup> in the county of Carnarvon, 3,570 feet above the sea, is the highest; *Cader Idris*,<sup>6</sup> 2,929 feet; *Plinlimmon*, 2,469 feet; the *Beacons of Brecknock*, 2,900 feet; and many others, are lofty and well-known points.

3. The Devonian System includes the hills of Devonshire and Cornwall. They are less elevated, but still impart a varied and often rugged surface to the south-west corner of the island.

*Brown Willy*, in Cornwall, 1,368 feet; *Yes Tor*, 2,040 feet; *Cawsand Beacon*, 1,802 feet, on Dartmoor in Devonshire; and *Dunkerry Beacon*, 1,707 feet, on Exmoor in Somerset, are the highest points in this system.

1. Pennine, from Celtic, *pen*, a hill.

2. Cross Fell, Danish, *Fell*, a hill.

3. Cumbrian, from *Cumbria*, the old name of Cumberland.

4. Cambrian, from *Cambria*, Wales.

5. *Snowdon*, *snow* and *don* (A.-S.), a hill; Welsh,

*Y Wyddfa*, which means the conspicuous place.

6. *Cader Idris*, Welsh for *Arthur's Seat*.

To the eastward of the above tracts the elevations are much less conspicuous; few points reach more than a thousand feet above the sea-level, and most of them are considerably below that altitude. The most important of these *hill ranges* are the **Yorkshire and Lincolnshire Wolds**,<sup>1</sup> the **East Anglian Heights**, which extend from the Chiltern Hills to the coast of Norfolk; **Gog Magog Hills**, in Cambridgeshire; the **North and South Downs**, with **Salisbury Plain**; <sup>2</sup> the **Marlborough Downs**, and other lower heights, to the south of the Thames; the **Cotswold Hills**,<sup>3</sup> in Gloucestershire, between the head-waters of the Thames and the lower course of the Severn; the **Malvern Hills**, between the Severn and the Wye; the **Mendip, Quantock, and Blackdown Hills**, in Somersetshire; the **Clee Hills** and the **Wrekin**, in Shropshire; and the **Client Hills**, in Worcestershire.

The most extensive moors<sup>4</sup> and moorlands are the bleak and barren **North York Moors**, in the north-east of Yorkshire; the boggy, peat-covered **Lancashire Moorlands**, between the Irwell and the Wyre; the wild and elevated waste of **Exmoor**, in Somerset and Devon; and the granitic, "Tor," crowned tableland of **Dartmoor**, in Devon.

**PLAINS.**—The most extensive plains and valleys in England are the following:—the **York Plain**, the **Cumbrian and Cheshire Plains**, the **Central Plain**, the district of the **Fens**, the **Eastern Plain**, the **Valley of the Severn**, and the **Valley of the Thames**.

1. The **York Plain** is the most extensive in England, and lies between the Pennine Range and the Wolds.

2. The **Cumbrian and Cheshire Plains** lie to the north and south of the Cumbrian Group, on the west side of the Pennine Range. Both are fertile, the latter especially being admirably adapted for grazing and dairy-farming.

3. The **Central Plain** varies from 200 to 400 feet above the sea, and extends from the Thames on the south to the Ouse on the north, and from the Severn on the west to the Trent on the east.

4. The district of the **Fens**,<sup>5</sup> which lies around the shores of the Wash, includes parts of the counties of Lincoln, Northampton, Huntingdon, Cambridge, Norfolk, and Suffolk, and forms the lowest and most perfectly level portion of the island. The whole tract has been converted by drainage into a highly productive district.

5. The **Eastern Plain** includes the sea-board of Essex, Suffolk, and Norfolk, and is separated from the Fens by the East Anglian Heights.

**RIVERS.**—As all the higher elevations of land lie nearer the western than the eastern shores, the longest rivers are, with one exception, on the eastern side of England, and flow into the North Sea. The main slope of the country is therefore towards the east; the shorter slopes are towards the south and west. The numerous streams and rivers of England may thus be classified according to the *inclination of their basins*.

1. **Wold**, A.-S. *wald*, a forest. Cf. German *wald*.

2. On this plain, about eight miles from Salisbury, is *Stonehenge*, a Druidical or Danish circle.

3. **Cotswold**, probably from the *cots* for sheep, and *wold*.

4. **Moor**, A.-S. *mer*, waste land.

5. Also called the "*Bedford Level*," from the Duke of Bedford, who reclaimed large portions of it in the reign of Charles II. The coast is in some parts protected from inundation by *dikes*, as in Holland.

- I. Rivers flowing into the North Sea, from the
1. *Pennine Range*: The Tyne, Wear, Tees, Ouse, and Trent.
  2. *Watershed of the Central Plain*: The Witham, Welland, Nen, and Great Ouse, all of which enter the Wash.
  3. *East Anglian Heights*: The Yare, Orwell, Stour (Essex), Colne, and Blackwater.
  4. *Cotswold and other hills*: The Thames and its tributaries.
  5. *Wealden Heights*: The Stour (Kent).
- II. Rivers flowing into the English Channel, from the
1. *Wealden Heights*: The Rother, Ouse (Sussex), and Arun.
  2. *The Downs of Hants and Wilts*: The Itchen, Test, and Avon.
  3. *Devonian Range*: The Stour (Dorset), Frome, Axe, Otter, Exe, Teign, Dart, Tamar, and Fal.
- III. Rivers flowing into the Bristol Channel, from the
1. *Devonian Range*: The Torridge, Taw, and Parret.
  2. *Cotswold Hills*: The Bristol Avon.
  3. *Watershed of the Central Plain*: The Avon (tributary of the Severn).
  4. *Welsh Mountains*: The Severn, Wye, Usk, Taff, Neath, Tawe, and Towy.
- IV. Rivers flowing into the Irish Sea, from the
1. *Welsh Mountains*: The Teify, Dyfi, Conway, Clwyd, and Dee.
  2. *Pennine Range*: The Mersey, Ribble, Wyre, Lune, and Edou.
  3. *Cumbrian Group*: The Kent and the Derwent.

Of the above the most important are the Thames, Severn, Trent, Yorkshire Ouse, Humber, Great Ouse, Wye, Tyne, Bristol Avon, and Mersey.

1. The *Thames*<sup>1</sup> is, with two exceptions,<sup>2</sup> the longest river in the British Islands, and it ranks first in order of importance, since it has London, the metropolis of the British Empire, upon its banks. It is formed by the junction of the Thame and the Isis (both of which rise in the Cotswold Hills, in Gloucestershire), and flows east into the North Sea after a course of 215 miles. Area of basin, 6,160 square miles. Tributaries—on the right bank, the *Kennel*, *Loddon*, *Wey*, *Mole*, *Darent*, and *Medway*; and on the left, the *Cherwell*, *Thame*, *Colne*, *Brent*, *Lea*, and *Roding*. The Thames is navigable for the largest vessels nearly to London Bridge, and for smaller craft to Lechlade, 160 miles from the sea. The tide is felt as far as Teddington (hence the name), about 80 miles from the sea.

2. The *Severn*<sup>3</sup> rises on the east side of Plinlimmon, and enters the Bristol Channel after a course of 240 miles. It drains an area of 4,500 square miles. Tributaries—on the right bank, the *Teme*; on the left, the *Vyrnwy*, *Tern*, *Stour*, and *Upper Avon*.<sup>4</sup> The Severn is navigable to Welshpool, a distance of 170 miles from the sea.

3. The *Trent* rises in the moorlands of Staffordshire, and falls into the Humber after a course of 180 miles. It is navigable to Burton, 105 miles from the Humber. Area of basin, 4,000 square miles. Tributaries—on the right bank, the *Tame* and the *Soar*; and on the left, the *Dove* and the *Derwent*.

4. The *Ouse*, sometimes distinguished as the Yorkshire Ouse, is formed by the junction of the *Swale* and the *Ure*, and flows into the Humber after a course of 150 miles. Area of basin, 5,500 square miles. Tributaries—on the right bank, the *Nidd*, *Wharfe*, *Aire*, *Don*; and on the left, the *Derwent*.

1. *Thames*, from *Thamesis*, the broad Isis: Gaelic *uisge*, water.

2. The Shannon and the Severn. The Severn is the longest river in Britain.

3. *Severn* or *Havren*. Being joined by the *Se* at Llanidloes, it becomes the *Seaurven* or *Severn*.

4. Three rivers named *Avon* have been men-

tioned above, and there are several other streams in various parts of Britain that bear the same name. *Avon* (or *a/ovon*) is the Celtic term for a stream, or running water. *Ouse*, which is also a name attached to several English rivers, is from the French *eaux* (waters), and is a record of the Norman conquest of our island.

5. The river **Humber** is formed by the junction of the Trent and Ouse, and is commercially important, Hull being the third port in the kingdom.

6. The **Great Ouse** is the longest river entering the Wash, having a length of 156 miles and draining an area of 2,960 square miles. Tributaries—*Cam*, *Lark*, and *Little Ouse*, all on the right bank. Navigable to Bedford, 90 miles from the sea.

7. The **Wye** rises on Plinlimmon, near the source of the Severn, and falls into the Bristol Channel after a course of 148 miles. Drainage area, 1,650 square miles.

8. The **Tyne** is formed by the confluence of the North Tyne, which rises in the Cheviots, and the South Tyne, rising on Cross Fell, and has a course of 73 miles. Area of basin, 1,100 square miles.

9. The **Bristol Avon** is sometimes regarded as a tributary of the Severn. It has a length of 78 miles and a drainage area of 900 square miles.

10. The **Mersey**<sup>1</sup> is a small river (68 miles in length), but its estuary forms the "Liverpool Channel," one of the most important harbours in the world. It drains an area of 1,706 square miles, and is navigable to its junction with the *Irwell*.

**LAKES.**—There are few lakes in England and Wales, and they are nearly all situated within the region of the Cumbrian Mountains—the far-famed "English Lake District"—and in North Wales.

In the English Lake District, the most picturesque part of the country, are several lakes, of which are **Windermere**,<sup>2</sup> **Ullswater**, **Coniston**, **Derwent Water**, **Bassenthwaite**, **Crummock**, and **Wastwater**. The chief Welsh lakes are **Bala Lake**, the **Lakes of Llanberis**, and **Conway**, in North Wales; and **Brecknock Mere**, in South Wales. There are also a few *meres* in Cheshire and the Fen District.

The largest English lake is **Windermere**, 14 miles long and 1 mile broad. **Bala Lake**, 4 miles long and  $\frac{3}{4}$  mile broad, is the largest in Wales.

**CLIMATE.**—The climate of England is temperate and healthy. The average temperature of the year is rather higher than that of the adjacent shores of the continent, while the summers are not so hot nor the winters so severe as those experienced on the mainland in similar latitudes.

The general moisture of the atmosphere, and the frequent occurrence of rain, as well as the above-mentioned characteristics, are explained by the insular position of Britain. The western side of the island has a rather higher temperature than the neighbourhood of the eastern coasts, and has also a greater fall of rain. The coasts of Cornwall and Devon, and the shores of South Wales, are especially distinguished by the mildness of their winter.

The mean temperature of summer in London is 63.8°; of winter, 37.3°. Mean annual temperature, 50.55°. The lowest average winter temperature is about 35° or 36°, and the highest average summer about 64°. The number of days in the year upon which west and east winds blow has been observed to be in the ratio of 225 to 140; north and south winds as 192 to 173. The average annual rainfall at Dover is 30 inches; London, 24; Coniston, 85; Liverpool, 35; and at Plymouth, 40.

1. *Mersey*, A.-S. *mere*, a lake; *ey*, an island.

2. *Windermere* (British), *gwyn*, bright; *dwr*, water; and A.-S. *mere*, a lake.

**MINERALS.**—The mineral produce of England and Wales is distinguished by its extraordinary abundance in what are most necessary to civilised man—*coal* and *iron*, together with *copper*, *lead*, *zinc*, *tin*, and other useful ores.

1. The coalfields<sup>1</sup> of England occur chiefly in the northern and midland counties, and yield an inexhaustible supply of that fuel—necessary alike for the purposes of manufacturing industry and of household consumption. South Wales includes a rich coalfield, of large extent, and North Wales contains some like tracts, of smaller area.

2. Iron-ore<sup>2</sup> occurs abundantly within the limits of nearly all the coal districts, and is most extensively worked in South Wales, together with the counties of Stafford, Shropshire, Yorkshire, Derbyshire, Durham, and Northumberland.

3. Lead is principally worked in Derbyshire, Northumberland, Cumberland, North and South Wales, and Devonshire.

4. Copper and tin belong chiefly (the latter entirely) to the counties of Cornwall and Devon.

5. Cheshire furnishes an abundant supply of salt, from the brine-springs and mines in the valley of the river Weaver, a tributary of the Mersey.

6. Good marble and building-stone are derived from the northern and north-midland districts of the country, as well as from its south-western peninsula. The Isle of Portland, in the county of Dorset, furnishes building-stone of excellent quality. The easterly and south-easterly divisions of England are deficient in this material; but the valuable clay in which they abound supplies the material—brick—of which the metropolis and other cities in those parts of the island are chiefly constructed.

7. Slate is extensively quarried in Wales and in the mountain-region of Cumberland and Westmoreland.

8. Of the precious metals, a considerable quantity of *silver* has always been derived from lead ore, &c., and an attempt has been made to work the *gold*-bearing rocks discovered near Dolgelly, in North Wales.

**PLANTS and ANIMALS.**—The large extent to which the land has been brought under culture has greatly diminished the size of the forests<sup>3</sup> with which considerable portions of England were formerly covered, while many of the wild animals which its woods once sheltered have become altogether banished from within its limits.

The wild grasses, flowers, and shrubs, with the numerous smaller members of the animal kingdom, though interesting to the naturalist, are of less real importance than the grains, fruits, and vegetables, the domestic cattle and various farm-yard stock, which engage the attention of the agricultural portion of the English population. Few, even of those which thrive most upon its soil, were originally native to England, and several have been introduced within a comparatively modern date.

1. The coalfields of England lie north of a line drawn from the Wash to the Severn; those of Wales are in the extreme south-eastern and north-eastern parts of the Principality. The great English coal-fields are the (1) Northumberland and Durham, (2) Cumberland, (3) Yorkshire, (4) Derbyshire and Nottingham, (5) North and South Staffordshire, and (6) Shropshire. Wales has two coalfields (1) the Flint and Denbigh coalfield in North Wales, and (2) the South Wales coalfield.

2. The chief iron mines are in South Wales,

South Staffordshire, and Yorkshire. From the clay-band ores of the Cleveland hills around Middlesborough, one-third of the iron smelted in England is produced, while the red hematite ores of North Lancashire and Cumberland supply the great steel works of Barrow-in-Furness.

3. The principal forests are:—the New Forest in Hants, Dean Forest in Gloucester, Salcey Forest in Northampton, Windsor Forest in Berks, and Sherwood Forest in Notte.



Among trees, the *oak*, *elm*, *birch*, *poplar*, *alder*, *aspen*, *yew*, *mountain ash*, and *Scotch fir*, are probably indigenous to the soil; as also are the *apple*, the *hazel-nut*, *willow*, black and white *thorn*, *blackberry*, and common *dog-rose*. The trees, shrubs, and roots that are most common in England are, for the most part, the same that belong to similar latitudes of Europe.

The vegetables which compose our common salads (as lettuces, radishes, &c.) were not grown in England until the reign of Henry VIII. The potato—a native of the New World—was first introduced into England in the reign of Elizabeth. The peach, and other fruits of like kind, have been derived (by way of Southern Europe) from the countries of Western Asia. We owe some of our most common garden flowers, as the ranunculus and the damask-rose, to the Crusaders and their companion pilgrims. The various roses, the narcissus, iris, jonquil, mignonette, and many other well-known ornaments of our garden, have been derived from Western Asia, or the coasts of the Mediterranean.

**INHABITANTS.**—England and Wales, with an area of 58,000 square miles, contain a population of over 29 millions,<sup>1</sup> so that, in the proportion of inhabitants to extent of surface, our country is more populous than any other European country, with the exception of Belgium.

In 1891, England contained 27,482,104, and Wales 1,518,914 inhabitants; equal to an average of 540 persons to the square mile in England, and 206 in Wales. The density of population varies exceedingly in different parts of the country; thus, while the County of London has over 350,000 inhabitants to the square mile, Westmoreland has only about 85. In Wales, the most thickly-peopled county is Glamorgan, with about 850 persons to the square mile; and the least populous is Radnor, with 50. The great centres of population are London, South Lancashire, the West Riding of Yorkshire, Birmingham, and Newcastle, in England; and Merthyr-Tydvil in Wales.

**Race.**—The people of England belong to the *Teutonic* race, those of Wales and Cornwall are of *Celtic* origin. Of the Celtic race, the *Gaels* were evidently the first settlers in the south of England, and were subsequently driven north to Scotland and west to Ireland by the *Kymri*, another section of the Celtic family, and the ancestors of the present Welsh. Of the Teutonic race, the *Angles*, *Jutes*, and *Saxons* first invaded Britain, and in time dislodged the *Kymri* from every part of the country except Cornwall and Wales. Numbers of two other sections of the Teutonic family, the *Danes* and the *Normans*, also settled in England, and by the gradual admixture of all these elements the *English* nation was formed.

**Language.**—The languages spoken also differ—that of the Welsh and, to a comparatively recent date, the Cornish people, being purely Celtic; that of the English is mainly derived from the Anglo-Saxon, but with a large admixture of Latin, Greek, Norman-French, and other words of foreign origin. In the Isle of Man a peculiar Celtic dialect, called Manx, is still spoken. In the Channel Islands, French is the common language.

**INDUSTRIES.**—*Manufactures* and *trade* constitute the great national industries of England. Until the close of the last century, England was essentially an agricultural country, but the rapid ex-

1. In 1861, England and Wales contained a population of 25,974,486—12,639,902 males, and 13,334,587 females—an increase, since 1871, of 3,262,172, equal to an average daily addition of 300 persons throughout the decade. In 1881, the

density in England and Wales was 446 per square mile; in 1861, 306; and in 1891, 158. In 1891, according to the Census Returns, the density was 498 per square mile.

tension of machinery, and the amazing growth of our great manufacturing industries, have effected a striking change in the general character of the national industry. England ranks first among the nations of the world, in regard both to the extent of manufacturing produce and the amount of its foreign trade. Its agricultural produce, though considerable, is unequal to the consumption of its population, and the deficiency is supplied by the importation of food-stuffs from other lands.

1. **Agriculture.**—The more strictly agricultural districts of England are found chiefly in the eastern and southern portions of the island; the manufacturing districts belong to the northern, north-midland, and western counties. The farming pursuit in the latter is devoted in great measure to the rearing of stock, which is also (from the hilly nature of its surface, unsuited to the plough) the case in Wales.<sup>1</sup>

*Wheat, oats, barley,* and *rye* are the grains most largely grown; wheat most extensively in the south-eastern counties, barley in the eastern and midland counties, oats within the district of the Fens and in the north. *Hops* are cultivated chiefly in Kent and Surrey (within the tract of country known as the Weald<sup>2</sup>), and in the counties of Worcester and Hereford. The *potato* is very largely grown in Lancashire, Cumberland, and Cheshire; the *turnip* chiefly in Norfolk. *Rape* is much cultivated in Lincolnshire and Cambridgeshire; *hemp* and *flax* in the counties of Lincoln and Suffolk. *Garden vegetables* are grown, on the most extensive scale, in the vicinity of the metropolises, and near the large towns in general. The counties of Hereford and Devon are distinguished for the extensive culture of the *apple*, from which cider is largely made.

2. **Manufactures.**—Cotton,<sup>3</sup> wool,<sup>4</sup> and iron are the three great staples of the manufacturing industry of Britain. The *first*, which is a vegetable material—the pod of the cotton plant—is derived by import, chiefly from the United States of America. The *second*, which belongs in its native state to the animal kingdom, is furnished by the fleeces of the sheep reared upon our plains and downs, together with enormous quantities imported from distant lands—principally from our colonies in Australia and South Africa. The *third*, a mineral ore, is supplied in exhaustless abundance by the English soil.

The southern division of Lancashire and the adjoining part of Cheshire are the great seat of the *cotton* manufacture, which, though of comparatively recent origin, employs a much larger number of artisans than any other single branch of British industry. Manchester is the centre and capital of the cotton manufacture, and Liverpool is its port. The West Riding of Yorkshire is the chief seat of the *woollen* manufacture, and the towns of Leeds and Bradford are its principal centres of industry. The south part of Staffordshire, and the adjacent portions of Warwick, Worcester, and Shropshire, are the chief seats of the manufacture of *iron* and *hardware* goods, and the town of Birmingham is the manufacturing capital of this district. Sheffield, in Yorkshire, is the chief seat of one branch of the hardware trade—the making of *cutlery*.

Other manufactures are carried on extensively in England, but none

1. Of the total area of England (32,527,070 acres), more than two-thirds are under cultivation or in permanent pasture. In Wales, only about half the land is in pasture or under cultivation.

2. That is, wood or forest, which is what the word (of Saxon origin) means. In former times all this portion of Kent and Surrey, with the adjoining part of Sussex, formed a vast forest.

3. Nearly 2,000 million lbs. of raw cotton are now imported every year. Three-fourths of it come from the United States, and the rest from Egypt, British India, Turkey, and other countries.

4. Over 700 million lbs. of wool are annually imported; considerably more than half coming from the Australasian colonies.

upon a scale of such magnitude as the three above-named. The *silk* and *linen* manufactures, the making of *hosiery* and *lace*, the *leather* manufacture, those of *earthenware* and *glass*, of *watches* and *clocks*, of *paper*, and a vast variety of others, are all of importance.

**TRADE.**—The internal trade of England is very extensive, and its development is facilitated by good *roads* and *railways*, *navigable rivers* and *canals*; while the numerous inlets and estuaries which form such splendid *harbours*, enable thousands of *coasting steamers* and sailing vessels to trade regularly from port to port on the coasts—east, south, and west.

Good roads and well-kept canals traverse every part of England, and lines of railway supply the means of rapid communication between all the principal towns.

**Roads.**—There are about 25,000 miles of turnpike roads, and more than 100,000 miles of cross roads. The former especially are well made, and are always kept in good condition.

**Canals and navigable rivers** formed a most important means of communication before railways were introduced, and are still largely used for the conveyance of heavy goods and coals. There are above 3,000 miles of canals, and nearly 1,800 miles of navigable rivers, so that the available waterways in England are nearly 5,000 miles in length.

**Railways.**—All the great railway lines in England radiate from London, which is thus directly connected by rail with every part of the country. The railways of England carry over 600 millions of passengers annually, besides enormous quantities of goods, and have done more than anything else to extend the trade and commerce of the country.

**Posts and Telegraphs.**—The postal and telegraphic services of England are the most complete and efficient in the world.

**COMMERCE.**—The foreign commerce of England extends to every part of the globe; her ships traverse every sea, and her flag is seen in the harbours of every land. The *import* of raw materials, and the *export* of manufactured goods, are distinguishing features of English commerce.

**Imports.**—*Sugar*, *coffee*, *spices*, and other productions of tropical regions, foreign to the English soil, are imported from the East and West Indies; *tea* from British India and China; *tobacco* from the United States and elsewhere; *timber* from Canada and the countries lying around the Baltic Sea; *wines* from France, Spain, Portugal, Germany, Hungary, and Australia; *hides*, *skins*, and *tallow* from South America, South Africa, and Russia; *raw cotton* from the United States, India, Egypt, and other countries; *wool* from Australia, South Africa, &c.; *corn* and *flour* from the United States, India, Australia, Russia, Austria-Hungary, &c.

**Exports.**—The most important articles exported are cotton, woollen, linen, and silk goods, iron and steel, earthenware, tin, machinery, stationery and books, and coal.

The countries to which the largest quantities of British manufactures and other produce are exported are the British Possessions abroad, the United States of America, the East Indies, France, Germany, Holland, Russia, Belgium, Italy, Africa, Brazil, Turkey, China, Spain, Denmark, Japan, and the various states of South America.

**Ports.**—Of the great ports of England, London has by far the largest *general trade*, but its *foreign trade* is not much larger than that of Liverpool. More than two-thirds of the entire foreign trade of England passes through these two great ports, which also yield considerably more than two-thirds of the total customs receipts.

The other chief ports (in order of tonnage entered and cleared) are the Tyne Ports (Newcastle, Gateshead, North and South Shields), Cardiff, Hull, Sunderland, Newport, Portsmouth, Southampton, Swansea, Bristol, Middlesborough, Plymouth, and Hartlepool.

**TOWNS.**—Three-fifths of the people of England and Wales live in towns. London alone contains one-sixth of the total population of the country, and two other cities, Liverpool and Manchester, each contain upwards of seven hundred thousand inhabitants.

According to the Census Returns for 1891, there are, besides *London*, *Liverpool*, and *Manchester*, 21 English towns with over 100,000 inhabitants, seven of which—Birmingham, Leeds, Sheffield, Bristol, Bradford, Nottingham, and Hull, contain a population of over 200,000. There are altogether no less than 62 towns with a population of over 50,000.

The ten largest towns in England and Wales are the following :—

London, with a population of 5,500,000; Liverpool, 780,000; Manchester and Salford, 703,000; Birmingham, 429,000; Leeds, 368,000; Sheffield, 324,000; Bristol, 222,000; Bradford, 216,000; Nottingham, 212,000; Hull, 200,000. Each of these ten cities thus contain over 200,000 inhabitants, and together contain over 8½ millions of people, or considerably more than one-fourth of the total population of England and Wales.

Twelve other towns contain over 100,000 inhabitants, namely :—

Newcastle, 186,000; Portsmouth, 159,000; Leicester, 142,000; Oldham, 131,000; Sunderland, 131,000; Cardiff, 129,000; Blackburn, 120,000; Bolton, 115,000; Brighton, 115,000; Preston, 108,000; Norwich, 101,000; Birkenhead, 100,000.

Fifteen other towns contain over 70,000 inhabitants, namely :—

Huddersfield, 95,000; Derby, 94,000; Swansea, 90,000; Ystradyfodwg, 88,000; Burnley, 87,000; Gateshead, 86,000; Plymouth, 84,000; Halifax, 83,000; Wolverhampton, 83,000; South Shields, 78,000; Middlesborough, 76,000; Walsall, 72,000; Rochdale, 71,000; St. Helens, 71,000; Stockport, 70,000.

**COUNTIES.**—England and Wales are divided into 52 Counties or Shires, of which there are 40 in England, and 12 in Wales.

All these divisions are very irregular in shape, and, as the map shows, very unequal in size. Rutlandshire, the *smallest of the English counties*, is hardly more than one-fortieth part of the size of Yorkshire, which is the *largest*. Lincoln, Devon, and Norfolk come next to Yorkshire in order of magnitude. Middlesex, Huntingdon, and Bedford are, next to Rutland, the smallest in extent.

The English counties are divided, with reference to relative situation, into six Northern, six Western, five Eastern, nine Southern, and fourteen Midland (six North-Midland and eight South-Midland) Counties

1. **The six Northern Counties** are Northumberland, Durham, Yorkshire, Cumberland, Westmoreland, and Lancashire. The first three border on the North Sea, the other three are on the western side of England.

2. **The six Western Counties** are Cheshire, Shropshire, Herefordshire, Monmouthshire, Gloucestershire, and Somerset. The first four border on Wales; the last two are on the English side of the Severn and its estuary.

3. **The five Eastern Counties** are Lincoln, Cambridge, Norfolk, Suffolk, and Essex. All, except Cambridge, are washed by the waters of the North Sea.

4. **The nine Southern Counties** are Kent, Surrey, Sussex, Berkshire, Hampshire, Wiltshire, Dorsetshire, Devon, and Cornwall. They stretch (with the exception of Surrey, Berkshire, and Wiltshire, which are inland) along the south coast of England, from the South Foreland on the east, to the Land's End on the west.

5. **The six North-Midland Counties** are Stafford, Derby, Nottingham, Leicester, Warwick, and Worcester.

6. **The eight South-Midland Counties** are Oxford, Buckingham, Middlesex, Hertford, Bedford, Huntingdon, Northampton, and Rutland. *Middlesex* is termed the "Metropolitan County," since it contains the greater part of *London*, the capital of England and of the British Empire.

7. **The six Counties in North Wales** are Anglesey, Carnarvon, Denbigh, Flint, Merioneth, and Montgomery.

8. **The six Counties in South Wales** are Cardigan, Radnor, Brecknock, Carmarthen, Pembroke, and Glamorgan.

**ADMINISTRATIVE COUNTIES.**—Besides the 52 counties, each of which is now governed by a County Council, London and 61 provincial Boroughs have, for all purposes of Local Government, been formed into Administrative Counties, absolutely independent of the counties of which they geographically form a part.

These **County Boroughs** are Barrow, Bath, Birkenhead, Birmingham, Blackburn, Bolton, Bootle-cum-Linacre, Bradford (Yorks.), Brighton, Bristol, Burnley, Bury, Canterbury, Cardiff, Chester, Coventry, Croydon, Derby, Davenport, Dudley, Exeter, Gateshead, Gloucester, Great Yarmouth, Halifax, Hanley, Hastings, Huddersfield, Ipswich, Kingston-upon-Hull, Leeds, Leicester, Lincoln, Liverpool, Manchester, Middlesborough, Newcastle-upon-Tyne, Northampton, Norwich, Nottingham, Oldham, Plymouth, Portsmouth, Preston, Reading, Rochdale, St. Helens, Salford, Sheffield, Southampton, South Shields, Stockport, Sunderland, Swansea, Walsall, West Bromwich, West Ham, Wigan, Wolverhampton, Worcester, York.

The County of London has an area of nearly 120 square miles, and a population of over  $4\frac{1}{2}$  millions.

For Administrative purposes, the County of London is controlled by a County Council. For Parliamentary purposes, London is divided into 59 Boroughs, each of which returns one member.

I. SIX NORTHERN COUNTIES.<sup>1</sup>

1. **NORTHUMBERLAND**, the most northerly of the English counties, contains the towns of Newcastle, North Shields, Berwick, Alnwick, Morpeth, and Hexham. The south-eastern portion of the county contains a rich coalfield, and has coal-mines, ironworks, and various manufactures. Its western and northern divisions are hilly and pastoral.

**NEWCASTLE** (186),<sup>2</sup> on the river Tyne, is the chief seat of the coal trade, and is also the county town. **Hexham**, a few miles west of Newcastle, was the scene of a victory gained by the Yorkists over the Lancastrian forces in 1464. **Berwick**, at the mouth of the river Tweed, adjoins the Scotch frontier, and is celebrated in the history of early border warfare. *Halidon Hill*, the scene of a victory gained by the English over the Scots in 1333, is immediately to the north of Berwick. Northumberland includes the site of the battle of *Flodden*, so disastrous to the Scotch, fought (in 1513) near the village of Flodden, a few miles distant from the small town of Wooler, at the eastern foot of the Cheviot Hills. *Homildon Hill*, the scene of Harry Percy's victory over Douglas (in 1402), lies only a mile distant from Wooler.

2. **DURHAM** adjoins Northumberland, and resembles that county in its eastern part, which is a rich coalfield, with numerous iron and other works, and busy seaport towns.

The cathedral city of **DUREHAM** (15), on the Wear, is the capital of the county,<sup>3</sup> but **Sunderland** (131), at the mouth of the same river, is a great coal port and shipbuilding centre; **Jarrow**, with its large shipbuilding yards and chemical works; and **Gateshead**, practically a suburb of Newcastle on the Durham side of the Tyne, are much more important places. **Stockton** (on the Tees), **Hartlepool**, **South Shields**, and **Tynemouth** are also in this county.

3. **YORKSHIRE** is divided into three *ridings*—the North, East, and West Ridings. The two former are agricultural and pastoral; the West Riding embraces part of an extensive coal-field, and is a populous district, the chief seat of the woollen and clothing manufactures.

**YORK** (67), the capital of the county, and an archbishop's see, stands on the river Ouse, in the centre of a fertile plain. A few miles west of York is the village of *Long Marston*, near which the army of Charles I. was defeated by Cromwell in 1644. Further to the south-west, near the banks of the Wharfe, is *Towton*, the scene of the bloodiest engagement fought during the Wars of the Roses (1461). *Stamford Bridge*, a few miles east of York (on the river Derwent), is noteworthy for the victory gained there, in 1066, by Harold over his brother Tostig and a Norwegian army, a few days prior to the battle of Hastings.

The chief towns in the West Riding of Yorkshire are Leeds, Sheffield,

1. The areas and population of the Six Northern Counties are as follows:—

(1.) Northumberland, 2,016 sq. m., pop. 506,096.

(2.) Durham, 1,011 sq. m., pop. 1,015,449.

(3.) Yorkshire, 6,067 sq. m., pop. 3,308,812.

(4.) Cumberland, 1,515 sq. m., pop. 266,580.

(5.) Westmoreland, 783 sq. m., pop. 66,098.

(6.) Lancashire, 1,869 sq. m., pop. 3,926,793.

2. As an indication of their absolute and relative importance, the population of the largest

towns are given (in thousands) between brackets, thus—Newcastle (186), i.e., 186,000. All populations of the counties and towns of the United Kingdom are taken from the Census Returns for 1891, except in the case of the smaller towns in Ireland.

3. The battle of *Neville's Cross*, gained over the Scottish army in 1346, was fought in this county, a few miles distant from the city of Durham.

Bradford, Huddersfield, Halifax, Wakefield, Barnsley, Dewsbury, Doncaster and Ripon. Leeds (367), on the river Aire, Bradford (216), Huddersfield (95), and Halifax (83), are the great seats of the woollen and clothing manufactures. Sheffield (324), on the river Don, is the seat of the cutlery trade. Ripon, on the Ure, is a cathedral city. Wakefield, also a cathedral city, on the river Calder, was the scene of a victory gained by the Lancastrians over the followers of the White Rose in 1460.

The East Riding contains the towns of Hull, Beverley, and Bridlington. Hull (200) stands on the north bank of the Humber, at the entrance of the little river Hull, and is an important seaport.

The North Riding contains Scarborough and Whitby, both situated on the coast; with Malton, Richmond, and Northallerton in the interior. The *Battle of the Standard*, between the English and Scottish armies in 1138, was fought near Northallerton. The port of Middlesbrough (although founded only in 1829, now contains over 75,000 inhabitants) is the centre of the important iron district of Cleveland.

4. **CUMBERLAND** is for the most part mountainous, but its northerly division includes a plain of some extent, along the Solway Firth and the lower course of the Eden. In the west, adjoining the Irish Sea, is a small but highly-productive coalfield. The chief towns are Carlisle, Whitehaven, Workington, Maryport, Cockermouth, Penrith, and Keswick.

CARLISLE (39), the capital, is a cathedral city, on the river Eden. Whitehaven, on the coast, is the chief seat of the coal trade. Workington and Maryport are other coal-exporting ports. Keswick is in the heart of the "Lake District."

5. **WESTMORELAND** is for the most part mountainous and pastoral, and contains the towns of Kendal and Appleby.

Appleby is the county town; but Kendal (14), on the river Kent, which flows into Morecambe Bay, is of larger size, and has woollen and other manufactures. Ambleside is much resorted to on account of the beauty of the scenery.

6. **LANCASHIRE** includes the great seats of the cotton manufacture. This branch of industry is pursued through all the southern portion of the county, which embraces a valuable coalfield. A small detached portion of the county, known as Furness, lies to the north of Morecambe Bay. This belongs physically to the region of the Cumbrian mountains.

Manchester (505, including the adjoining town of Salford 703), on the Irwell, and Liverpool (with suburbs, 730), at the mouth of the Mersey, are the largest towns in England, next to the metropolis; the former is the great centre of the cotton trade, and the latter its port. Manchester and Liverpool are cathedral cities. Liverpool is now connected with Birkenhead by a railway tunnel under the Mersey. Preston, on the Ribble, Bolton, Oldham, Blackburn, Wigan, Rochdale, Ashton-under-Lyne, Warrington, Colne, Chorley, and Lancaster, are all busy manufacturing towns. Barrow-in-Furness (52) is the port of the iron ore districts of North Lancashire, and has the largest steel works in the kingdom. LANCASTER, on the river Lune, ranks as the capital of the county. Part of Stalybridge is in this county.

II. SIX WESTERN COUNTIES.<sup>1</sup>

1. **CHESHIRE** is chiefly an agricultural county, but includes part of the cotton-manufacturing district.

The cathedral city of **CHESTER** (37), on the river Dee, is its capital. On *Routon Heath*, to the west of this city, the troops of Charles I. were defeated by the parliamentary forces in 1645—a few months after the battle of Naseby. **Stockport** (70), **Macclesfield** (36), and **Birkenhead** (100), opposite to **Liverpool** (with which it is now connected by a railway tunnel under the Mersey), are important towns. **Nantwich**, **Middlewich**, and **Northwich**, in the valley of the river Weaver, are famous for their saltworks. The manufacturing town of **Stalybridge** (26) is principally in this county.

2. **SHROPSHIRE** is chiefly agricultural, but includes a small coalfield, and has some iron and other manufactures at **Coalbrookdale**, and elsewhere.

**SHREWSBURY** (27), on the Severn, is the county town. The battle between the army of Henry IV. and the insurgent forces under Hotspur was fought in its immediate vicinity in 1403. There are coal and iron mines at **Wenlock** and **Madeley**. The other towns are **Bridgnorth**, **Wellington**, **Ludlow**, and **Oswestry**.

3. **HEREFORDSHIRE** is entirely agricultural, and is famous for its hop-grounds and its orchards.

The city of **HEREFORD** (20), its capital, stands on the river Wye, and has an ancient cathedral. Important cattle and cheese fairs are held in October each year. **Leominster**, **Ledbury**, and **Ross** are small towns in this county. A few miles to the north-west of **Leominster** is *Mortimer's Cross*, one of the battlefields of the Wars of the Roses, A.D. 1461.

4. **MONMOUTHSHIRE** is a mining and manufacturing county. It includes a portion of the South Wales coalfield, and has numerous ironworks.

The chief town, **MONMOUTH** (6), is on the Wye, at the junction of the small river Munnaw. At **Tredegar** are several coal and iron mines. The other towns are **Newport** (55), a considerable seaport at the mouth of the **Usk**, **Abergavenny**, **Pontypool**, and **Chepstow**.

5. **GLOUCESTERSHIRE** includes the long chain of the Cotswold Hills, and is in great part agricultural, but it possesses two small coalfields—one of them in the Forest of Dean, to the west of the Severn, the other near the Avon, on the south border of the county. The making of woollen cloth is pursued extensively at **Stroud** and other places in the neighbourhood of the Cotswolds.

**GLOUCESTER** (40), the capital, is on the left bank of the Severn, and is a cathedral city. **Cheltenham**, **Stroud**, **Cirencester**, and **Tewkesbury**

1. The area and population of the Six Western Counties are as follows:—

(1.) Cheshire, 1,026 sq. m., pop. 730,052.

(2.) Shropshire, 1,319 sq. m., pop. 236,324.

(3.) Herefordshire, 833 sq. m., pop. 115,936.

(4.) Monmouthshire, 578 sq. m., pop. 252,230.

(5.) Gloucestershire, 1,224 sq. m., pop. 559,374.

(6.) Somersetshire, 1,640 sq. m., pop. 434,323.



are in this county. Cheltenham is famed for its mineral waters. Tewkesbury, on the Severn, is historically noteworthy on account of the victory gained there by Edward IV. over the army of Queen Margaret, in 1471, three weeks after the battle of Barnet.

**Bristol** (222), on the river Avon, is partly in Gloucestershire and partly in Somersetshire, but has the privileges of a county in itself. Bristol is an important and flourishing port.

6. **SOMERSETSHIRE** is almost wholly agricultural.

**TAUNTON** (18), on the river Tone, is the county town. **Bath** (52), which is of larger size, stands on the Avon, and has warm mineral springs. **Wells** is an ancient city, lying at the foot of the Mendip Hills. The cities of Bath and Wells form together one diocese or episcopal see. **Frome** (10), **Bridgwater** (12), and **Yeovil** are in this county. Between Bridgwater and Taunton is *Sedgemoor*, the scene of Monmouth's defeat by the troops of James II. in 1685. *Athelney*, the temporary retreat of Alfred, was in former ages a marshy tract of ground, lying near the junction of the rivers Tone and Parret, by which it was insulated.

### III. FIVE EASTERN COUNTIES.<sup>1</sup>

1. **LINCOLNSHIRE** is an agricultural county.

Its capital, **LINCOLN** (41), is an ancient cathedral city on the river Witham. **Boston** (15), also on the Witham, a few miles above its mouth, and **Grimsby** (52), on the south bank of the Humber, are flourishing ports. **Gainsborough** (on the Trent), **Stamford** (on the Welland), and **Louth** are inland towns.

2. **CAMBRIDGESHIRE** is an agricultural county. Its northern half is called the Isle of Ely, from its having in former times been insulated by marshes, and is within the level region of the Fens.

The county town, **CAMBRIDGE** (37), is on the river Cam, or Granta, which joins the Ouse, and is the seat of one of the two ancient universities of England. **Wisbeach**, **Ely**, and **Newmarket** are in this county. **Ely**, on the river Ouse, is a cathedral city.

3. **NORFOLK** is the only one of the eastern counties that possesses any considerable manufactures; but by far the larger portion of the county is agricultural.

The ancient cathedral city of **NORWICH** (101), its capital, was an early seat of woollen manufacture, which it still retains. Norwich stands on the river Wensum, immediately above its junction with the Yare. **Yarmouth** (49), at the mouth of the Yare, is the chief centre of the English herring fishery. **Lynn** or **King's Lynn** (18), which also possesses considerable trade, is at the mouth of the Great Ouse.

4. **SUFFOLK** is an entirely agricultural county.

1. The areas and population of the Five Eastern Counties are as follows:—

(1) Lincolnshire, 2,792 sq. m., pop. 472,778.  
(2) Cambridgeshire, 820 sq. m., pop. 188,862.

(3) Norfolk, 2,118 sq. m., pop. 466,474.

(4) Suffolk, 1,476 sq. m., pop. 366,361.

(5) Essex, 1,542 sq. m., pop. 785,399.

Its chief town, **IPSWICH** (57), stands on the river Orwell, a few miles above its mouth. **Bury St. Edmunds**, **Lowestoft**, and **Sudbury** are the other principal towns. **Lowestoft** is a seaport, situated at the most easterly extremity of Great Britain, and is an important station of the herring fishery.

5. **ESSEX** is also chiefly agricultural.

Its county town is **CHELMSFORD** (11), on the river Chelmer. **Colchester** (35), on the Colne, has large oyster fisheries. **Harwich**, at the mouth of the Stour, is an important packet station for passengers and goods to and from the continent, and may be regarded as one of the outports of London. **Saffron-Walden**, **Braintree**, and **Maldon** are small inland towns.

#### IV. NINE SOUTHERN COUNTIES.<sup>1</sup>

1. **KENT** is chiefly an agricultural county, but it contains numerous seaports, some of which, from their proximity to the coast of France, were early of historical importance, and several of them are still important as packet stations or popular seaside resorts.

The county town is **MAIDSTONE** (32), on the river Medway; but **Chatham**, **Woolwich**, and **Dover** are of larger size. **Chatham** (32), which lies near the mouth of the Medway, is an important naval arsenal. It adjoins **Rochester**, which is an ancient cathedral city. **Woolwich**, the great military arsenal of England, is on the south bank of the Thames, below London. **Dover** is at the south-east corner of the island, immediately opposite to the coast of France; a few miles west of it is **Folkestone**, also a seaport of ancient date. **Dover** and **Folkestone** are now the chief packet stations for the continent, steamers running regularly from **Dover** to **Calais** and **Ostend** and from **Folkestone** to **Boulogne**. **Canterbury** (23), on the river Stour, is an ancient cathedral city—the ecclesiastical metropolis of England<sup>2</sup>—and surpasses any other place in Kent in historic dignity. It was here that the Saxon king, **Ethelbert**, A.D. 597, embraced Christianity, on its re-introduction into Britain by the agency of **Augustine**.

Along the shores of Kent (beginning at the eastern suburbs of London) there occur in succession the following places:—**Greenwich**, **Woolwich**, **Gravesend**, **Rochester**, and **Chatham**; **Sheerness** and **Queenborough** (on the Isle of Sheppey); **Whitstable**, **Margate**, **Ramsgate**, **Sandwich**, **Deal**, **Dover**, **Folkestone**, and **Hythe**.

**Margate** and **Ramsgate** are popular watering-places, on the eastern coast of Kent. Opposite **Deal** are the *Goodwin Sands*, between which and the shore is the much-frequented roadstead called *The Downs*.<sup>3</sup>

1. The areas and population of the Nine Southern Counties are as follows:—

(1) Kent, 1,555 sq. m., pop. 1,142,281.  
 (2) Surrey, 785 sq. m., pop. 1,720,571.  
 (3) Sussex, 1,426 sq. m., pop. 550,442.  
 (4) Berkshire, 722 sq. m., pop. 333,446.  
 (5) Hampshire, 1,621 sq. m., pop. 690,066.  
 (6) Wiltshire, 1,254 sq. m., pop. 264,069.  
 (7) Dorsetshire, 980 sq. m., pop. 194,437.  
 (8) Devonshire, 2,536 sq. m., pop. 631,767.  
 (9) Cornwall, 1,549 sq. m., pop. 322,699.

2. **Canterbury** and **York** are each the seat of an archbishopric. But **Canterbury** ranks first in point of dignity. The Archbishop of **York** is a primate of England; the Archbishop of **Canterbury** is primate of all England.

3. Some of the ports on the Kentish and Sussex coasts had peculiar privileges granted them in the later Saxon and early Norman times, from the importance of their position with reference to the opposite shores of the continent. The *CINQUE PORTS*, as they were called—originally five in number—were *Sandwich*, *Deal*, *Dover*, *Hythe*, and *Romney*, all in Kent. Three others, *Rye*, *Winchelsea*, and *Hastings*, in the adjoining county of **Sussex**, were afterwards added. **Dover**, **Deal**, and **Hastings** are now the most considerable of the *Cinque Ports*, the harbours of the others having become choked up by sand. These ports were bound by charter to provide a certain number of ships for the defence of the coast.

2. **SURREY** includes that portion of the metropolis situated to the south of the Thames, but by far the greater part of the county is agricultural.

**GUILDFORD** (14), the county town, is on the river Wey, an affluent of the Thames; **Croydon** (103), ten miles south of London Bridge, is almost a suburb of London. **Richmond** and **Kingston**, both on the Thames, are in this county. **Kingston** was important in Saxon times, and seven of our Saxon kings were crowned there. **Runnymede**, where the Great Charter was signed by King John, at the instance of his armed barons (A.D. 1215), is within the north-western border of Surrey, immediately adjoining the south bank of the Thames, and near the small town of **Egham**.

3. **SUSSEX**, an agricultural county, includes an extensive line of coast lying along the English Channel. From **Beachy Head** westward, this coast is backed by the range of chalk hills called the **South Downs**.

**LEWES** (11), on a small river called the Ouse, is the county town, and gave its name to a battle fought in the vicinity between Prince Edward (afterwards Edward I.) and the rebellious barons, during the reign of Henry III. (A.D. 1264). **Brighton** (115), on the coast, is a large and flourishing town, the resort of vast numbers of visitors from the metropolis. **Eastbourne** (35), near **Beachy Head**, is a fashionable watering-place. **Hastings**, also on the coast, is further to the eastward. A few miles west of **Hastings** (near **Bulverhithe**, on the shore of **Pevensy Bay**) is the place where **William the Conqueror** landed in 1066; the small town of **Battle**, to the north-west of **Hastings**, marks the scene of the engagement which, a few days afterwards, transferred the dominion of England from Saxon to Norman hands. **Shoreham** and **Worthing** are on the coast, to the west of **Brighton**. **Chichester**, still further west, is a cathedral city.

4. **BERKSHIRE** is an agricultural county.

**READING** (60), its capital, stands at the junction of the river **Kennet** with the Thames. **Windsor**, famous for its Castle, the chief residence of our sovereign, is on the south bank of the Thames. **Abingdon**, **Maldenhead**, **Newbury**, and **Wantage** are in this county. Two engagements between the armies of **Charles I.** and the Parliament occurred near **Newbury** in 1643 and the following year. **Wantage** is distinguished as the birthplace of **Alfred the Great**.

5. **HAMPSHIRE** is an agricultural county.

It possesses two important seaports—**Portsmouth** (159), and **Southampton** (85); but **WINCHESTER** (19), an ancient cathedral city, in the fertile valley of the **Itchen**, is the capital. **Winchester** was the chief city of the West Saxon kings, and continued to be regarded, in early Norman times, as the capital of the kingdom. **Portsmouth** is one of the three great naval arsenals of England. **Andover**, **Lymington**, and **Basingstoke** are small towns.

The **Isle of Wight** lies to the south of **Hampshire**, and forms a portion of that county. It contains the small towns of **Newport**, **Eyde**, **Ventnor**,

and *Cowes*. Near *Newport* is *Carisbrooke Castle*, at one time the prison of King Charles I. The eastern portion of the channel which divides the Isle of Wight from the mainland is called *Spithead*; the western portion is the *Solent*. *Osborne* is a favourite residence of our Queen.

6. **WILTSHIRE** is chiefly agricultural, but the manufacture of woollen cloth is carried on in its westerly division.

**SALISBURY** (16), the capital of the county, and a cathedral city, is on the *Avon*. The manor-house of *Clarendon*, where the well-known statutes called "The Constitutions of Clarendon" were drawn up in the reign of Henry II., is a few miles east of Salisbury. *Stonehenge*, a Druidical remain—among the most ancient monuments of our island—is upon the high chalk tract of Salisbury Plain. At *Bradford*, *Trowbridge*, and *Westbury*, the famous "West of England" cloth is made. *Devizes*, *Warminster*, and *Marlborough* are among the other towns in this county. *Roundway Down*, near *Devizes*, was the scene of a skirmish between the Royalist and Parliamentary forces in 1643.

7. **DORSETSHIRE** is an agricultural county, and has several small seaports on the coast of the Channel.

**DORCHESTER** (8), the county town, is on the river *Froom*. *Weymouth*, (14), is a packet station and a fashionable watering-place. *Poole* and *Bridport* are among the other towns. The peninsular tracts known as the *Isle of Purbeck* and the *Isle of Portland* are both within this county.

8. **DEVONSHIRE**, which is chiefly an agricultural county, includes the high tract of *Dartmoor*, and (in the north) part of an elevated region called *Exmoor*, on the borders of *Somerset*. It has numerous seaports, some on the shore of the *English Channel*, and others on the side of the *Bristol Channel*.

**EXETER** (38), the capital, is a cathedral city, on the river *Exe*. *Plymouth* (84), and *Devonport* (55), are adjacent towns, situated on the fine estuary of *Plymouth Sound*, which is one of the chief stations for the British navy. About 14 miles to the south stands the famous *Eddystone Lighthouse*. *Barnstaple* (at the mouth of the river *Tawe*, which flows into *Barnstaple Bay*), *Bideford*, *Tiverton*, *Tavistock*, *Dartmouth*, *Teignmouth*, and *Torquay* are in this county.

9. **CORNWALL** is chiefly a mining county. Its tin mines have been worked from a very early age—many centuries before the Christian era. It has also numerous copper mines.

**BODMIN** (5), is the county town, but *Truro* (11), a cathedral city, ranks as the capital of the mining district. *Penzance*, *Falmouth*, *St. Austell*, and *Launceston* are among the other towns. *Stratton*, near the northern extremity of the county, was the scene of a victory gained by the Royalists over the Parliamentary forces in 1643.

The *Scilly Islands* lie off the coast of *Cornwall*, at the entrance of the *English Channel*. *Hugh Town*, the capital, is on *St. Mary's*, the largest of the six inhabited islands.

V. SIX NORTH-MIDLAND COUNTIES.<sup>1</sup>

1. **STAFFORDSHIRE**, a mining and manufacturing county, includes two coalfields—one (that of South Staffordshire) the seat of the iron and hardware manufacture; the other (in the northern part of the county) embracing the district of the Potteries.

The county town is **STAFFORD** (20), on the river Sow, an affluent of the Trent. But **Wolverhampton** (83), **West Bromwich** (60), **Walsall** (72), **Bilston** (23), and **Wednesbury** (25), within the coal and iron district of the south (and in the vicinity of Birmingham), are all of larger size. **Stoke-upon-Trent** (25), **Hanley** (55), and **Etruria**, are in the Pottery district. **Lichfield** (8), towards the eastern border of the county, is a cathedral city. **Burton-on-Trent** (46) is famous for its *ale* and *beer*, enormous quantities of which are sent from this town to all parts of the world.

The site of the battle of *Blore Heath* (A.D. 1459) is within this county, about eleven miles to the north-west of Stafford, and close to the Shropshire border.

2. **DERBYSHIRE** is partly a manufacturing county, but embraces the rugged and elevated district of the Peak, which forms its northerly division. It has numerous lead and iron mines, and includes part of an extensive coalfield, the larger portion of which is within the adjacent county of York.

The chief town, **DERBY** (94), is on the river Derwent, which joins the Trent, and is a great seat of the silk manufacture, and particularly of silk stockings. **Chesterfield**, **Belper**, **Wirksworth**, **Ashborne**, **Buxton**, and **Matlock** are among the other towns. **Matlock** is noted for its warm mineral waters, and for the romantic beauties of its scenery.

3. **NOTTINGHAMSHIRE** is partly manufacturing, but is more generally an agricultural district.

The chief town, **NOTTINGHAM** (212), on the Trent, has extensive manufactures of cotton stockings and lace. **Newark**, **Mansfield**, and **Worksop** are smaller towns. A few miles from Newark, and near the south bank of the Trent, is the village of *Stoke*, the scene of a battle fought (A.D. 1487) between the army of Henry VII. and the followers of the impostor Lambert Simnel.

4. **LEICESTERSHIRE** has extensive manufactures, though a great portion of the county is agricultural.

The county town, **LEICESTER** (142), on the river Soar, which joins the Trent, is one of the most considerable of our midland towns, and is noted for its manufacture of woollen stockings and boots and shoes. *Bosworth*, near which the battle that terminated the Wars of the Roses was fought in 1483, is a few miles west of Leicester. *Ashby-de-la-Zouch*, in the north-west part of the county, has a small coalfield in its neighbourhood. The other towns are **Loughborough**, **Hinckley**, **Melton Mowbray**, **Market Harborough**, and **Lutterworth**.

1. The areas and population of the Six North-Midland Counties are as follows—

(1.) Staffordshire, 1,169 sq. m., pop. 1,083,378.  
(2.) Derbyshire, 1,029 sq. m., pop. 627,896.

(3.) Nottinghamshire, 824 sq. m., pop. 445,599.

(4.) Leicestershire, 799 sq. m., pop. 373,893.

(5.) Warwickshire, 884 sq. m., pop. 805,070.

(6.) Worcestershire, 738 sq. m., pop. 143,753.

### 5. WARWICKSHIRE is a manufacturing county.

The county town, **WARWICK** (12), is on the banks of the Upper Avon. Adjoining it is **Leamington**, famous for its mineral waters. **Birmingham** (429), in the north-west part of Warwickshire, close to the Staffordshire border, is a large and populous town, the great centre of the iron trade. **Coventry** (53), further to the east, has a small coalfield in its vicinity, and was formerly noted for its manufacture of ribbons, but is now the principal seat of the cycle manufacture in the kingdom. **Rugby** (with its great public school), **Nuneaton**, and **Stratford-on-Avon** (the birthplace of **Shakespeare**), are in this county. The battle of *Edgehill* (A.D. 1642) was fought on the rising ground of that name within the southern extremity of Warwickshire.

### 6. WORCESTERSHIRE has extensive manufactures in its northerly division, but is chiefly an agricultural county.

Its capital, **WORCESTER** (42), on the Severn, is a cathedral city, and is noted for its porcelain and glass works, as well as for many events of historic fame—chief among them the victory of Cromwell over the adherents of Charles II. in 1651. **Kidderminster** (25), on the Stour, has extensive carpet factories. **Dudley** (46), further to the north, though belonging to this county, is locally within the iron and coal district of South Staffordshire, and is a populous seat of the hardware trade. **Bromsgrove**, **Stourbridge**, **Stourport**, and **Evesham** are within this county. *Evesham* (within the fertile vale of that name, watered by the Avon) was the scene of a battle between Prince Edward and the barons under Simon de Montfort in 1265.

## VI.—EIGHT SOUTH-MIDLAND COUNTIES.<sup>1</sup>

### 7. OXFORDSHIRE is also an agricultural county.

**OXFORD** (38), the capital of the county, and a cathedral city, at the junction of the Cherwell and the Thames, is a celebrated seat of learning, with one of the two ancient universities of England. Among the other towns are **Banbury**, **Witney**, **Henley-on-Thames**, and **Woodstock**. *Chalgrove Field*, the scene of a skirmish between the forces of Charles I. and the Parliament, in which Hampden was mortally wounded (1643), is in this county.

### 8. BUCKINGHAMSHIRE is entirely an agricultural county.

The town of **Buckingham** (3) lies on the Great Ouse, in the northern part of the county. The other towns are **AYLESBURY** (9), **Great Marlow**, and **Wycombe**. **Aylesbury**, the county town, is noted for the manufacture of condensed milk; **Eton** has a famous college.

9. **MIDDLESEX** is the most populous of the counties, owing to the larger portion of London being within its limits. It stretches along the north bank of the river Thames, by which it is divided from the neighbouring county of Surrey.

**LONDON**, with its suburbs, stretches over a vast space, and contains altogether nearly 5½ millions of inhabitants, a far larger population than that of any other city on the globe. Besides its rank as the metropolis of

1. The areas and population of the Eight South-Midland Counties are as follows:—

(1.) Oxford, 786 sq. m., pop. 158,383.

(2.) Buckinghamshire, 743 sq. m., pop. 185,190.

(3.) Middlesex, 263 sq. m., pop. 2,361,702.

(4.) Hertfordshire, 638 sq. m., pop. 220,128.

(5.) Bedfordshire, 460 sq. m., pop. 160,728.

(6.) Huntingdonshire, 568 sq. m., pop. 287,772.

(7.) Northamptonshire, 864 sq. m., pop. 352,184.

(8.) Rutlandshire, 148 sq. m., pop. 30,628.

the kingdom, London is a great manufacturing and commercial city, a centre of art, literature, general refinement, and wealth. Westminster, which is now included within the westerly limits of the metropolis, was formerly separated from London by intervening fields. Southwark, the southwardly division of London, is to the south of the Thames, and within the county of Surrey. London contains the cathedral church of St. Paul's, and constitutes a bishop's see.

The towns of **BRENTFORD** (14), **Uxbridge**, and **Staines** are in this county; Brentford is the county town.

10. **HERTFORDSHIRE** is an agricultural county, and has no towns of large size.

**HERTFORD** (7), on the river Lea, is the county town. Near it is Ware, also on the Lea. **St. Albans**, **Hitchin**, **Watford**, **Bishop Stortford**, and **Barnet** are small places in this county. *St. Albans* was the scene of two of the battles fought during the Wars of the Roses (1455 and 1461). *Barnet*, which lies on the borders of Hertford and Middlesex, witnessed a more important event belonging to the same disastrous period—the battle in which the famous Earl of Warwick was slain, A.D. 1471.

11. **BEDFORDSHIRE** is a small agricultural county.

It has for its capital the town of **BEDFORD** (28), on the river Ouse. Near it is **Elstow**, the birthplace of John Bunyan. Among its other towns are **Luton** (30), **Dunstable**, **Leighton Buzzard**, and **Woburn**. Luton and Dunstable are noted for straw-plait and straw-hat manufacture.

12. **HUNTINGDONSHIRE** is an agricultural county, and great part of it is within the district of the Fens.

Its county town, **HUNTINGDON** (4), on the river Ouse, was the birthplace of Oliver Cromwell. **St. Ives** and **St. Neots** are small towns in this county.

13. **NORTHAMPTONSHIRE** is chiefly an agricultural county.

Its county town, **NORTHAMPTON** (61), on the river Nen, has, however, an extensive manufacture of boots and shoes. **Peterborough** (25), also on the Nen, is a cathedral city, and has considerable trade. **Wellingborough**, **Kettering**, and **Daventry** are smaller towns. *Naseby*, the scene of the decisive victory gained by Cromwell over the army of Charles I. (A.D. 1645), is in this county, twelve miles distant from Northampton, to the north-west. A battle was fought near the town of *Northampton* in 1460, during the Wars of the Roses.

14. **RUTLANDSHIRE**, the smallest of the English counties, is entirely agricultural.

It contains the small towns of **OAKHAM** (2) and **Uppingham**, the former of which is the county town. At Uppingham is an excellent high-class grammar school.

VI. TWELVE WELSH COUNTIES.<sup>1</sup>

**ANGLESEY** is chiefly pastoral and agricultural, but has valuable deposits of copper ore and a small coalfield. **Beaumaris** is the county town, and **Holyhead** is an increasingly important packet station.

**CARNARVONSHIRE**, famous for its mountain and coast scenery, is also the centre of the *slate* industry. At **Carnarvon**, the county town, and **Conway** are fine castles, both built by Edward I. **Bangor** has an ancient cathedral. **Llandudno** is a rising watering-place near **Great Orme's Head**.

**DENBIGHSHIRE** includes the far-famed **Vale of Clwyd** and the charming river **Dee**. **Wrexham** and **Euabon** are the mining, and **Denbigh** and **Llanrwst** the agricultural centres. **Beddgelert** and **Buthin** are favourite tourist resorts.

**FLINTSHIRE**, the smallest of the Welsh counties, has valuable mines of coal and lead. **Flint**, **Mostyn**, **Mold**, **Holywell**, and **Rhyl** are the chief towns.

**MERIONETHSHIRE** is wild and hilly, but well wooded and with some fine scenery. There are large slate quarries at **Festiniog** and gold mines near **Dolgelly**. **Bala**, on **Bala Lake**, is a favourite tourist resort.

**MONTGOMERYSHIRE**, a wild and hilly county, is noted for the manufacture of Welsh flannel at **Welshpool** and other towns.

**CARDIGANSHIRE** is rich in minerals—lead, silver, zinc, and copper ores are largely exported from **Aberystwith**, the chief port. **Cardigan** is the county town.

**RADNORSHIRE** is the smallest, least populous and interesting of the six southern counties, and its few towns are small and unimportant. **Prestelgn** is the county town.

**BRECKNOCKSHIRE**, also an inland county, is wild and mountainous, with some fine scenery along the **Wye** and in the **Beacon uplands**. **Brecknock**, or **Brecon**, is the county town.

**CARMARTHENSHIRE**, the largest of the Welsh counties, is low towards the sea, rising inland into lofty hills and barren uplands. The county includes part of the great **South Wales coalfields**, and **Llanelli** is an important port. **Carmarthen**, the county town, is on the **Towy**.

**PEMBROKESHIRE**, the most westerly of the Welsh counties, possesses in **Milford Haven**, a magnificent natural harbour. **Pembroke**, **Milford**, **Tenby**, and **Haverfordwest** are the chief towns. **St. David's** and its cathedral are historically interesting, **St. David** being the patron saint of Wales.

**GLAMORGANSHIRE** is the most populous and important county in Wales, and has coal mines and ironworks on a scale of great magnitude. **Merthyr Tydvil** (58), **Ystradyfodwg** (88), **Aberdare**, **Dowlais**, and **Neath** are the great mining centres, and **Cardiff** (129) and **Swansea** (90) the chief ports, of this rich region. **Swansea** is the headquarters of the copper-smelting industry.

1. The area and population of the 12 Welsh

Counties are as follows:—

- |  |  |
|--|--|
| (1.) Anglesey, 302 sq. m., pop. 50,078.        | (6.) Montgomeryshire, 778 sq. m., pop. 58,003.   |
| (2.) Carnarvonshire, 577 sq. m., pop. 118,226. | (7.) Cardiganshire, 622 sq. m., pop. 52,898.     |
| (3.) Denbighshire, 694 sq. m., pop. 117,960.   | (8.) Radnorshire, 432 sq. m., pop. 21,791.       |
| (4.) Flintshire, 222 sq. m., pop. 77,182.      | (9.) Brecknockshire, 719 sq. m., pop. 57,681.    |
| (5.) Merionethshire, 501 sq. m., pop. 46,204.  | (10.) Carmarthenshire, 928 sq. m., pop. 130,574. |
|  | (11.) Pembrokeshire, 611 sq. m., pop. 50,125.    |
|  | (12.) Glamorganshire, 307 sq. m., pop. 637,147.  |



## QUESTIONS ON ENGLAND AND WALES.

1. Write out a short general description of the British Isles.
2. How is England bounded?
3. Name the principal coasts upon (a) the east coast of England, (b) the south coast, (c) the west coast.
4. Which are the extreme eastern, southern, and western points of England?
5. Name, in successive order, the principal gulfs and other inlets and straits on the coasts of England.
6. Give a few particulars of the principal English islands.
7. What tracts of high ground occur in succession upon the western side of England and Wales, proceeding from north to south?
8. Name the highest mountains in England and Wales, with their height in feet.
9. In what counties of England are the following:—Dartmoor, the Chiltern Hills, the Wrekin, the Mendip Hills, the South Downs, and the Wolds?
10. In what counties are the Clee Hills, the 2000-foot Hills, the Cotswold Hills, the Blackdown Hills, Exmoor, and Salisbury Plain?
11. Name a few of the larger plains and valleys of England.
12. Enumerate the principal rivers on (a) the east coast from north to south, (b) the south coast, (c) the west coast.
13. Describe briefly the principal rivers of England and Wales.
14. Name the principal English lakes, and give particulars as to their size.
15. What parts of the English and Welsh coasts are distinguished by the superior mildness of their winter climate?
16. What minerals occur in England and Wales?
17. In which of the English counties do we find iron, salt, and slate?
18. Name some of the trees that are native to the English soil.
19. In which parts of England is the industry of the people chiefly agricultural.
20. What grains are most extensively grown in England, and in what localities?
21. What three articles form the great staples of manufacturing industry in Britain? Whence is each principally derived?
22. What three districts are respectively the great seats of the cotton, woollen, and iron manufactures; and what town is the chief industrial centre in each?
23. What are the characteristic features of the foreign trade of Britain, as to the general nature of its imports and exports?
24. From what countries are the following imports chiefly derived:—tea, coffee, sugar, timber, wines and spirits, tobacco, and hides?
25. To what countries are the largest quantities of British manufactures exported?
26. Say what you know of the shipping of the kingdom and means of communication.
27. How many counties are there in England? Which is the largest of the number? Which the smallest?
28. Name (a) the six northern counties; (b) the six western counties; (c) the five eastern counties; (d) the nine southern counties; and (e) the fourteen midland counties.
29. Name the chief towns in the counties of Northumberland and Durham.
30. What are the chief towns within the West Riding of Yorkshire, and by what branches of industry are they distinguished?
31. Name the chief towns of Lancashire, distinguishing the county town.
32. Upon what rivers are the following towns:—Newcastle, Carlisle, Lancaster, Preston, Manchester, Shrewsbury, and Chester?
33. Name the county town of each of the six western counties, with the river on which it stands.
34. Name the county town of each of the five eastern counties, with the rivers on which they stand.
35. Name the nine southern counties, with the chief town of each.
36. In what counties are the following towns:—Oswestry, Abergavenny, Taunton, Wells, Stroud, Boston, King's Lynn, Lymington, Ely, Ipswich, and Colchester?
37. On what river does Norwich stand, and of what branch of manufacturing industry is it the seat?
38. In what counties are Maidstone, Guildford, Windsor, Lewes, Portsmouth, Newbury, Weymouth, and Salisbury?
39. Name the towns that were formerly known as the Cinque Ports. In what counties are they situated?
40. On what rivers are Maidstone, Winchester, Reading, Salisbury, Borocheater, and Exeter?
41. By what branch of industry is Cornwall distinguished, and what towns does it contain?
42. Name the metropolitan county. What towns, besides London, does it contain?
43. In what counties are the following towns:—St. Albans, Aylesbury, Banbury, Peterborough, Dunstable, and Loughborough?
44. In what counties are Birmingham, Kidderminster, Dudley, Stourbridge, Lichfield, Chesterfield, and Newark?
45. Of what branch of manufacturing industry is Birmingham the centre, and what adjacent towns are within the same manufacturing district?
46. In what county is Stoke-upon-Trent, and of what branch of industry is it the seat?
47. Of what manufactures are the towns of Nottingham, Derby, and Leicester the respective seats?
48. Upon what river is each of the following towns situated:—Derby, Leicester, Warwick, Peterborough, Bedford, and Nottingham?
49. In what counties of England are the sites of the following battles:—Hastings, Blore Heath, Towton, Bosworth, and Stoke?
50. In what counties are the following:—Flodden, Edgehill, Chalgrove Field, Marston Moor, Naseby, and Sedgemoor?
51. Name the six counties of North Wales, with the chief town of each.
52. Name the six counties of South Wales, with the chief town of each.

1. It is hardly necessary to observe that questions of this kind may be either extended or varied at the discretion of the teacher. Those that are given above are intended rather to exemplify the kind of treatment of which the subject is susceptible, than designed to indicate

any definite limit to exercises of this description. The more thoroughly such a mode of examination is pursued—always with and on the map—the larger will be the amount of real knowledge gained by the learner.

## SCOTLAND.

SCOTLAND<sup>1</sup> is the northern portion of the island of Great Britain.

**BOUNDARIES.**—Scotland is bounded on the *north* and *west* by the Atlantic Ocean; on the *south* by England and part of the Irish Sea; and on the *east* by the North Sea.

Scotland is divided from—

England by the Solway Firth, the Cheviot Hills, and the Tweed.

Ireland by the North Channel.

Denmark and Norway by the North Sea.

**EXTENT.**—The area of Scotland (inclusive of its numerous islands) is over 30,000 square miles, or a little more than half that of England and Wales. The mainland alone embraces an area of about 27,000 square miles.

The *greatest length*,<sup>2</sup> from Dunnet Head to the Mull of Galloway, is 288 m.

The *greatest breadth*, from Buchan Ness to Ardnamurchan Point, is 175 m.

The *least breadth*, between the Firths of Forth and Clyde, is only 32 miles.

**COASTS.**—The coasts of Scotland are more indented than those of England, especially on the *west*<sup>3</sup> and *north*, and have a total length of not less than 2,500 miles, equivalent to 1 mile of coast to every 12 square miles of area. The broader indentations by which the sea penetrates the land are generally called *Firths*—the narrower inlets bear the name of *Lochs*.<sup>4</sup> Owing to its numerous indentations, no part of the mainland is more than 40 miles from the sea.

From the Solway Firth to Loch Linnhe the shores are generally low, but from the latter north to Cape Wrath and east to Dunnet Head the coast is formed by high cliffs. The east coast, from Tarbet Ness to the Firth of Forth, is on the whole flat and generally sandy, but from St. Abb's Head to the Tweed it is bold and rocky. The principal features to be noted are—

1. **Capes.**—The principal capes are—

- (1.) On the *north*, Dunnet Head and Cape Wrath.
- (2.) On the *east*, Duncansbay Head, Tarbet Ness, Kinnaird's Head, Buchan Ness, Buddon Ness, Fife Ness, and St. Abb's Head.
- (3.) On the *west*, the Butt of Lewis, Ardnamurchan Point, the Mull<sup>5</sup> of Cantire, and Corsewall Point.
- (4.) On the *south*, the Mull of Galloway and Burrow Head.

1. Scotland, the "land of the Scots." The Scots were a Celtic tribe, from the north of Ireland, who passed over and settled in Cantire about the year 503, and gradually extended their conquests until, in 843, the king of the Scots ruled over nearly the whole of Scotland north of the Clyde and Forth. The name "Scotland" came into general use about the year 860. The native Picts and their descendants, the modern Highlanders, call the country *Albyn*. To the Romans it was known as *Caledonia*.

2. Or, including the islands, about 450 miles.

3. "The western firths are merely submerged land-valleys." See Prof. Geikie's "Physical

Features of Scotland" in the "Scottish Geographical Magazine," vol. i., p. 51.

4. The term *loch* is uniformly given to lakes in Scotland, as it also is to the narrow inlets of the sea upon the western and northern coasts, such as Loch Fyne and others. There is, however, an important difference between the two. The inland lochs, such as Loch Lomond, have *fresh water*, like the lakes of England and other countries. The lochs that lie along the coast, such as Loch Fyne, are arms of the sea, and consist, consequently, of salt water.

5. Mull, Gael. *mào*, a headland.

The most *northerly* point is Dunnet Head.

The most *southerly* point is the Mull of Galloway.

The most *easterly* point is Buchan Ness.

The most *westerly* point is Ardnamurchan Point.

2. **Inlets.**—The most important inlets are :—

- (1.) On the *north*, Dunnet Bay, the Kyle<sup>1</sup> of Tongue, and Loch Eriboll.
- (2.) On the *south*, Glenluce Bay, Wigtown Bay, and the Solway Firth.
- (3.) On the *east*, the Firth of Forth, the Firth of Tay, the Moray Firth, Cromarty Firth, and Dornoch Firth.
- (4.) On the *west*, Loch Broom, Loch Linnhe, Loch Fyne, the Firth of Clyde, Loch Long, and Loch Ryan.

3. **Channels and Sounds.**—The principal are :—

**Pentland Firth**, between the Orkneys and the mainland.

**Sound of Sleat**, between Skye and the mainland.

**Sound of Mull**, between the Isle of Mull and the mainland.

**Sound of Jura**, between Jura and the mainland.

**The Minch**, between Lewis and the mainland.

**The Little Minch**, between the Outer Hebrides and Skye.

**Sound of Islay**, between Jura and Islay.

**North Channel**, between Scotland and Ireland.

**ISLANDS.**—Scotland has above 700 islands,<sup>2</sup> forming four distinct groups, and having a total area of about 3,700 square miles.

1. The **Orkneys** lie immediately to the north of the mainland of Great Britain, and are divided from it by the Pentland Firth. There are altogether 67 islands, of which the principal are Pomona (or Mainland), Hoy, North and South Ronaldsha, and Westra. *Kirkwall* on the eastern, and *Stromness* on the western, coast of Pomona, are the largest towns.

2. The **Shetlands**<sup>3</sup> lie north-east of the Orkneys, and consist of about 100 islands, of which 24 are inhabited. The largest islands are Mainland, Yell, and Unst. Chief town, *Lerwick* (see page 77).

3. The **Hebrides** include a great number of islands lying off the west side of Scotland, and surrounded by the waters of the Atlantic Ocean. Some of them, as the islands of Skye, Mull, and Jura, are near the mainland, and only divided from it by narrow channels. Others, as Lewis, North Uist, and South Uist, are further off to seaward. The channel between Lewis and the mainland is called the Minch. *Lewis*, *Skye*, *Mull*, *Jura*, and *Islay* are the largest of the Hebrides. The small islets of *Iona* and *Staffa*, lying off the west side of Mull, are famous—Iona for its remains of ancient churches, and Staffa for its basaltic cavern.

4. **Islands in the Firth of Clyde**, viz., two large islands, Arran and Bute, and the islets of Great and Little Cumbra.

**MOUNTAINS.**—In Scotland, as in England, the higher grounds lie chiefly on the western side of the country. But mountains cover a much larger proportional extent of Scotland than is the case with the English hills, and they reach a greater height. England is chiefly a level country, and mountains are exceptional to its general character; Scotland is principally mountainous, and its plains are of limited extent.

1. Kyle, Gaelic, a ferry.

2. A few detached islets off the coast of Scotland deserve notice. The *Base Rock* and *Inchkeith* are in the Firth of Forth; the *Bell Rock* is about fourteen miles east of the mouth of the Firth of Tay; *Ailsa Cruic*, in the Firth of Clyde.

rises over 1,000 feet above the sea; the *Pentland Skerries*, in the firth of that name.

3. About midway between the Shetlands and the Orkneys is *Fair Island*, on which the admiral of the Spanish Armada was wrecked in 1593.

Scotland is naturally divided into the *Highlands* and the *Lowlands*. The Highlands embrace the northern and western portions of the country; the Lowlands, its southern and eastern districts. The Lowlands of Scotland, however, are by no means level. They embrace numerous hilly tracts, but the hills are less elevated, and of more rounded form, with broader valleys between, than is the case in the Highlands.

The division between the Highlands and the Lowlands is marked by a broad plain called *Strathmore*,<sup>1</sup> which stretches across the country in the direction of north-east and south-west, from near Stonehaven on the North Sea, to Dumbarton on the Clyde. A narrower valley,<sup>2</sup> called *Glenmore*, extends through the Highland region, and forms a complete natural division across the country.

The mountains of Scotland are naturally divisible into three groups or systems—the Northern, Central, and Southern Highlands.

1. The **Northern Highlands** include the mountain ranges and groups north of *Glenmore*. The highest points are *Ben<sup>3</sup> Wyvis*, near *Cromarty Firth*, 3,400 feet above the sea; *Ben Attow*, 4,000 feet.

2. The **Central Highlands**, as the *Grampians*, the highest mountains of Scotland, may be called, stretch across the country in the direction of east and west. *Ben Nevis*, which is the highest of the Grampians, reaches 4,406 feet above the sea, and is the highest mountain, not only in Scotland, but in the British Islands. The other principal heights are *Ben Macdhui*, 4,300 feet; *Cairntoul*, 4,200 feet; *Ben Avon*, 4,000 feet; *Ben More*, 3,900 feet; *Ben Lomond*, 3,200 feet.

To the south of the Grampians are the minor hill-ranges which form the southern boundary of *Strathmore*, and known as the *Sidlaw Hills*, the *Ochil Hills*, and the *Campsie Fells*.

3. The **Southern Highlands** include the *Cheviot Hills*, the *Moffat Hills*, and the *Louthers*, and also the *Pentland*, *Moorfoot*, and *Lammermoor Hills*.

The highest points are:—*Broadlaw*, 2,700 feet, and *Hart Fell*, 2,260 feet, in the *Lowther Hills*; *Carnethy*, in the *Pentlands*, 1,800 feet; and *Says Law*, in the *Lammermoor Hills*, 1,760 feet.

**PLAINS.**—Owing to the broken nature of the country there are no plains of any great extent. The principal are the *Plain of Caithness*, in the extreme north; the *Plain of Cromarty*, along both sides of the firth of that name; *Strathmore*, between the Grampians and the *Sidlaw* and *Ochil Hills*; the *Carse of Gowrie*, between the *Sidlaw Hills* and the river *Tay*.

Besides the above, we may notice also the valleys or *dales* of southern Scotland and the *glens* of the Highlands. Of the former the most noted are *Clydesdale*, *Tweeddale*, *Teviotdale*, *Eskdale*, through which flow the rivers so named. Of the latter the most important is *Glenmore*, which extends right across the country from *Loch Linnhe* to the head of *Moray Firth*.

**RIVERS.**—Most of the larger rivers of Scotland belong to the east side of the country, and discharge their waters into the *North Sea*. The chief of them are the *Tweed*, *Forth*, *Tay*, *Dee*, *Don*, *Spey*, and

1. That is, "the great strath."

2. It is through this valley that the *Caledonian Canal* has been formed, by joining the waters of the lakes which occupy a large portion of its bed. *Glenmore* means "the great glen."

3. The following etymologies of the names of Highland peaks may be useful:—*Ben*, mountain;

*more* (Welsh, *maer*), great; *Ben More*, great mountain; *Ben Dearg*, red mountain; *Ben Wyvis*, mountain of terror; *Ben Attow*, rush mountain; *Ben Macdhui*, black swine mountain (cf. Welsh, *moch*, swine, and *du*, black); *Ben Nevis*, mountain of death; *Cairngorm*, blue mountain.

*Ness*. The principal rivers on the west and south-west coasts are the *Clyde*, the *Ayr*, and the *Nith*.

1. The *Tweed* rises in the Lowthers, and has a *length* of 96 miles and a *drainage area* of 1,870 square miles. It is noted for its salmon fisheries, and is unnavigable above Berwick.

2. The *Forth* rises on Ben Lomond, and at Alloa falls into the firth to which it gives its name. Its windings form the "Links of Forth." Length, 60 miles; *drainage area*, 645 square miles. The Firth of Forth is about 50 miles long, and is navigable for the largest vessels. The *Forth Bridge* spans it at Queensferry.

3. The *Tay* is the largest river in Scotland, and carries more water to the sea than any other river of Great Britain. It has a length of 105 miles, and drains an area of about 2,400 square miles. It is navigable to Perth.

4. The *Clyde*, 98 miles in length, rises in the Lowthers, and drains about 1,580 square miles. Near Lanark are the celebrated "Falls of the Clyde." The Clyde is navigable to Glasgow, and is commercially the most important of the Scottish rivers, being sufficiently deep in its lower part to admit ships of the largest size.

5. The *Dee* has its source on the Cairngorm, 4,060 feet above the sea, considerably higher than any other British river. Length, 87 miles.

6. The *Spey*, 96 miles long, is the most rapid and destructive of British rivers, and is unnavigable throughout.

**LAKES.**—Scotland, especially its Highland region, abounds in lakes. Most of them are of long and narrow shape, and of great beauty. The principal are Loch Lomond, Loch Katrine, Loch Tay, Loch Awe, Loch Ness, Loch Maree, and Loch Leven.<sup>1</sup>

1. *Loch Lomond* is the largest lake in Scotland, and also in Great Britain. It is 24 miles long, 7 miles broad, and has an area of 45 square miles. It contains about 30 islands, and is unquestionably "the pride of our lakes," exceeding all others in extent and beauty.

2. *Loch Katrine*, 9 miles long and  $\frac{3}{4}$  mile broad, is the chief attraction of the beautiful tract known as the *Trossachs*,<sup>2</sup> and is the scene of Scott's "Lady of the Lake."

3. *Loch Awe*, 23 miles long and nearly  $1\frac{1}{4}$  miles broad, is surrounded by lofty mountains, and is one of the most beautiful of Scottish lakes.

**CLIMATE.**—The climate of Scotland is slightly colder than that of England, owing to its more northerly situation. Within the Highlands, especially, the winter is more severe; rain is also more abundant there than in the Lowland region.

The *mean annual temperature* of Edinburgh is 47.1°; Aberdeen, 49.1°; and Wick, 46.9°. The mean winter temperature of the Shetlands is about the same as that of the Isle of Wight. The annual *rainfall* is from 22 to 33 inches on the east coast, and from 30 to 44 inches on the west coast.

**NATURAL PRODUCTIONS.**—The natural productions of Scotland are the same as those of England, with a few exceptions.

1. *Animals.*—Same as those of England. *Deer*, however, are much more abundant, chiefly in the game forests of the Highlands. Clydesdale is noted for a fine breed of *horses*, and the Shetland Islands for the hardy "Shetland" *ponies*.

1. On one of the islands in Loch Leven stood the castle in which Mary Queen of Scots was imprisoned (1567-9).

2. That is, narrow.

2. **Plants.**—The vegetation consists for the most part of plants of hardier growth than those of England. The *Scotch fir*, and other members of the pine tribe, are abundant upon the mountain-sides, and the heather imparts its purple colour to their lower slopes. Several of the richer fruits and plants that thrive on the southern coasts of England (as the peach and apricot) will not come to perfection in Scotland; and the hardier grains—*oats* and *barley*—are those most generally grown. Fine crops of *wheat*, however, are grown in many districts of Southern Scotland.

3. **Minerals.**—The mineral resources of Scotland are very great. As in England, coal and iron are the staples of its wealth in this regard, and they form the basis of its manufacturing prosperity. *Coal* and *iron* occur in vast abundance within an extensive district of the Lowlands—that which stretches across the country from Fifeshire on the east side to Ayrshire on the west, embracing the extensive plain between the Firths of Forth and Clyde. *Lead* is worked in some districts of Southern Scotland. Good *building-stone* also occurs there. *Granite* is obtained from the Grampians, and also from the Isle of Arran, and some other localities.

**INHABITANTS.**—Scotland is much less populous than England—both *absolutely* (that is, according to the actual number of its inhabitants) and *relatively* (or in the ratio of population to extent of surface). In 1891 it contained 4,000,000 inhabitants. The Lowland division of the country is much more populous than the Highlands.

The number in 1881 was 3,735,573, an average of only 125 to the square mile; in 1891, the average had risen to 134 per square mile, a little more than a fourth of that of England, and considerably lower than that of Wales or Ireland.

**Race and Language.**—The people of the Highlands and the Lowlands are two distinct races, speaking different tongues. The language of the Lowlands resembles the English tongue; that of the Highlands is a distinct dialect, called the *Gaelic*. But the Highland population are gradually growing accustomed to the use of the English language, and their native tongue becomes, with each succeeding generation, less prevalent.<sup>1</sup>

**INDUSTRIAL PURSUITS.**<sup>2</sup>—Scotland is principally a manufacturing and commercial country; but agriculture, though necessarily limited,<sup>3</sup> is in a flourishing condition.

1. **Agriculture** is perhaps nowhere more skilfully practised than in the Lowlands. Only one-fourth of the country is arable, and about one-half of this is in permanent pasture or in grass (clover, &c.). The chief objects of culture are *oats*, *barley*, *rye*, *wheat*, *potatoes*, and *turnips*. But the staple crop throughout Scotland is *oats*. *Turnips* are largely grown in Haddington, and *potatoes* throughout the eastern counties.

2. In the Highlands, the rearing of **cattle**, with the extensive **fisheries**<sup>4</sup> pursued off the coasts, are the principal branches of industry. In the southern Lowlands, also, great numbers of cattle are reared, chiefly for the supply of the English markets.

1. It is commonly supposed that the Lowland Scotch is merely a dialect of, or a corruption of, the English language. But while the latter is based chiefly upon the Anglo-Saxon, the former is essentially derived from the Norse or Scandinavian. Now both the Anglo-Saxon and Norse were branches of the same old Teutonic; hence the similarity between the Lowland Scotch and the English. The *Gaelic* is a Celtic dialect, and is allied to the Welsh.

2. The percentage of persons engaged in the various industries in Scotland is as follows:—*Agriculture*, 23 per cent.; *manufactures*, 28 per cent.; *mining*, 17 per cent.; *commerce*, 10 per cent.; *professional, domestic, &c.*, 14 per cent.

3. The productive area of Scotland is only 23 per cent. of the whole area.

4. Value of the fish (including salmon) landed in 1890, £1,849,461. Number of men employed, 53,143.

3. **Manufactures** are largely pursued in Lowland Scotland, chiefly within the coal<sup>1</sup> and iron district between the Clyde and the Forth, and in the counties of Fife and Forfar upon the eastern coast.

The *cotton* manufacture, which is the first in order of importance, characterises Glasgow, and the neighbouring tract of country on the western side of the island, within the counties of Lanark and Renfrew; the *linen* and *jute* manufacture is found chiefly in the neighbourhood of the east coast—at Dundee and Arbroath, in Forfarshire, and Dunfermline, in Fifeshire. The *woollen* manufacture is pursued in many parts of the Lowlands, especially in the counties of Aberdeen, Stirling, Ayr, Fife, Renfrew, Forfar, and Lanark, and the making of tweeds, tartans, &c., centres in the towns of Galashiels, Selkirk, Hawick, in the basin of the Tweed. Paisley is famous for its shawl and thread manufacture.

*Shipbuilding*, principally iron and steel steamships, is extensively carried on at Glasgow, Greenock, and Port-Glasgow.

4. **Commerce.**—The commerce of Scotland resembles that of England, and is considerable and rapidly increasing. The *imports* are chiefly raw materials for manufacture and colonial produce; the *exports* are manufactured goods and agricultural produce, coal, iron, and fish.

The commercial metropolis of Scotland is **Glasgow**. Other important ports are Leith, Greenock, Aberdeen, Dundee, Irvine, and Montrose.<sup>2</sup>

5. **Internal Communication.**—There are excellent roads, even in the Highlands, several canals, and over 3,000 miles of railways.

1. **Roads.**—There are nearly 4,000 miles of excellent *turnpike roads*. Several of those in the Highlands were constructed after the collapse of the rebellion of 1745.

2. **Canals.**—The two principal canals are the *Forth and Clyde Canal*, connecting the Clyde near Renfrew with the Forth near Grangemouth; the *Caledonian Canal* through Glenmore, the three lochs in which are joined by about twenty-three miles of cuttings, thus affording a passage from the Atlantic to the North Sea without rounding the northern coast of Scotland; and the *Crinan Canal*, across the peninsula of Cantire, joining Loch Fyne and the ocean.

3. **Railways.**—The principal main lines of railway are:—

(1.) The *Caledonian*, from Carlisle to Edinburgh, Glasgow, and Aberdeen.

(2.) The *North British*, from Berwick to Glasgow, Edinburgh, Dundee, and Aberdeen.

(3.) The *Glasgow and South-Western*, from Glasgow to Carlisle, with branches to Portpatrick, Girvan, and Ardrossan.

(4.) The *Highland*, from Perth to Thurso and Wick.

(5.) The *Great North of Scotland*, from Aberdeen to Peterhead, Banff, and Lossiemouth.

**COUNTIES and TOWNS.**—Scotland is divided into thirty-two counties. They are of very unequal sizes, more so than the English counties. Clackmannanshire, the smallest, is only one-third part the size of Rutland. Inverness-shire, the largest among them, is nearly four-fifths the size of Yorkshire.

*Thirteen* of the counties are within that portion of Scotland which lies to the south of the Firths of Forth and Clyde, and are entirely within the Lowlands. The names of these thirteen are Edinburgh, Linlithgow, Haddington, Berwick, Roxburgh, Selkirk, Peebles, Dumfries, Kirkcudbright, Wigtown, Ayr, Lanark, and Renfrew. *Three* of the counties that are to the northward

1. In 1890, 24½ million tons of coal were produced.

2. The gross receipts of customs in Scotland, in 1890, was 1½ millions, rather more than one-half

the receipts of the port of Liverpool, but only one-sixth those of London. The total receipts in the United Kingdom, in 1890-1, amounted to 19½ millions.

of the Firth of Forth are also wholly within the Lowland region, namely, Fife, Kinross, and Clackmannan.<sup>1</sup>

In all, therefore, *sixteen* of the counties are comprised entirely within the Lowlands. Of the others, several are partly Lowland counties and partly within the Highlands. All the counties that extend along the east coast of the country, Perth, Forfar, Kincardine, &c., belong in part to the Lowland region; but they stretch westward into the rugged mountain region of the interior, and their larger portion falls within the Highland limits.

Bute, Argyle, Inverness, Ross and Cromarty, and Sutherland are almost exclusively Highland counties. Stirling, Dumbarton, Perth, Forfar, Kincardine, Aberdeen, Banff, Elgin, Nairn, and Caithness are partly Highland. Buteshire consists of the two large islands of Arran and Bute, in the Firth of Clyde, with a few smaller islets.

The Orkney and Shetland Islands form a distinct county. Of the Hebrides, some belong to Argyle, some to Inverness, and others to Ross and Cromarty.

## I. THIRTEEN SOUTH-LOWLAND COUNTIES.<sup>2</sup>

1. **EDINBURGH**, or Mid-Lothian, is distinguished by its agricultural industry, and also as the metropolitan county of Scotland. It is level and well cultivated in the north, but hilly in the south.

The city of **EDINBURGH** (261) occupies a striking situation near the shore of the Firth of Forth (about two miles distant), and a commanding rock which rises high above the Old Town is crowned by its castle—a strong fortress of ancient date, and the scene of numerous events of importance in Scottish annals. A broad valley forms a well-marked natural division between the New Town of Edinburgh and the older portion of the city. Holyrood, the ancient palace of the Scottish sovereigns, is within the Old Town, at the opposite extremity to the Castle Hill. Edinburgh is the seat of one of the Scottish Universities, and ranks as the literary metropolis of the north. Arthur's Seat, a rocky hill rising to 822 feet above the sea, overlooks the city from the south-east.

**Leith** (68), on the coast of the neighbouring firth, forms the port of Edinburgh, and is joined to that city by continuous lines of building. On either side of Leith are numerous thriving fishing and trading ports—**Newhaven** and **Granton** to the westward, **Portobello** and **Musselburgh** on its eastern side. The battle of **Pinkie** (1547) was fought in the neighbourhood of Musselburgh, near the right bank of the little river Esk, which enters the firth at that point. **Dalketh**, in the interior of the county, is a small town at the junction of the two arms of the river Esk.

2. **LINLITHGOW**, or West-Lothian, is a small agricultural county, but its surface is generally irregular.

1. In several parts of Scotland the ancient territorial names of particular districts are still familiarly used. Thus the three counties that extend along the southern shore of the Firth of Forth are known as the *Lothians*—Edinburgh corresponding to Mid-Lothian, Haddington to East-Lothian, and Linlithgow to West-Lothian. The counties of Kirkcudbright and Wigton, in the south-west, are popularly known as *Galloway*. Forfarshire is still often referred to by its former name of *Angus*, and the county of Elgin by that of *Moray* (or *Murray*).

2. The areas and population (in 1891) of the thirteen South-Lothian Counties are as follows—

- (1) Edinburgh, 262 sq. m., pop. 444,653.
- (2) Linlithgow, 120 sq. m., pop. 52,739.
- (3) Haddington, 270 sq. m., pop. 57,491.
- (4) Berwick, 460 sq. m., pop. 32,398.
- (5) Roxburgh, 665 sq. m., pop. 53,736.
- (6) Selkirk, 257 sq. m., pop. 27,340.
- (7) Peebles, 354 sq. m., pop. 14,730.
- (8) Dumfries, 1,062 sq. m., pop. 74,303.
- (9) Kirkcudbright, 357 sq. m., pop. 39,979.
- (10) Wigton, 425 sq. m., pop. 35,048.
- (11) Ayr, 1,123 sq. m., pop. 224,222.
- (12) Lanark, 331 sq. m., pop. 1,045,787.
- (13) Renfrew, 244 sq. m., pop. 289,799.



Its chief town, **LINLITHGOW** (4), possesses the remains of an ancient palace, in which *Mary Queen of Scots* was born in 1542. **Bathgate** is a thriving town in the interior. **Bo'ness** trades in coal and iron.

3. **HADDINGTON**, or *East-Lothian*, is agriculturally the foremost county in Scotland, being for the most part level and fertile.

The town of **HADDINGTON** (4), its capital, stands on the river *Tyne*—a less important stream than the English river of that name. **Dunbar**, a thriving port on the coast of this county, is of great note in Scottish annals, frequently besieged, and alternately in Scottish and English hands. Two battles fought in the immediate vicinity add to the chequered interest of its fortunes—one a victory gained by *Edward I.* over the army of *Baliol* in 1296, the other a more important victory which *Cromwell* obtained over the Scottish Army in 1650. **North Berwick**, on the coast of **Haddington**, lies at the entrance of the *Firth of Forth*. **Prestonpans**, also on the shore of the same firth, and a few miles to the east of *Edinburgh*, is noteworthy for the defeat of the English forces by the troops of *Prince Charles Edward* in 1745.

4. **BERWICK** (or the *Merse*, as it is called) adjoins the English border, reaching from the *Lammermoor Hills* to the banks of the *Tweed*. Its industry is chiefly agricultural.

The county town is **GREENLAW**. The other towns are **Duns**, **Coldstream**, **Earlston**, and **Eyemouth**—the last a seaport situated a short distance to the south of *St. Abb's Head*.

5. **ROXBURGH** stretches from the banks of the *Tweed* to the summits of the *Cheviot Hills*, including the fine pastoral district of *Teviotdale*—watered by the river *Teviot*, an affluent of the *Tweed*. It is level in the north, but hilly in the south. Its industries comprise the woollen manufacture, agriculture, and the rearing of cattle and sheep.

**JEDBURGH** (3), its county town, is on the little stream of the *Jed*, which joins the *Teviot*. A few miles north-west of *Jedburgh* is *Ancrum Moor*, where the *Earl of Angus* defeated an English army in 1545. **Hawick** (19), in upper *Teviotdale*, manufactures "tweeds" and other woollen goods. **Keiso** (4), on the *Tweed*, has a fine abbey. **Melrose**, famous for the ruins of its well-known abbey, and **Abbotsford**, formerly the residence of *Sir Walter Scott*, are in this county, both on the south bank of the *Tweed*.

6. **SELKIRK**, a pastoral and hilly region, includes the tract of country called *Ettrick Forest*, watered by the river *Ettrick*, which joins the *Tweed*, receiving on its way the tributary stream of the *Yarrow*.

The county town, **SELKIRK** (6), is on the right bank of the *Ettrick*. On the opposite bank of the river is *Philiphaugh*, the scene of *Montrose's* surprise and defeat in 1645. The town of **Galashiels** (17), to the northward of the *Tweed* (on the little river *Gala*), has a flourishing manufacture of woollen cloths.

7. **PEEBLES**, a pastoral and hilly region, embraces the upper portion of *Tweeddale*, and is entirely agricultural.

The county town, **PEEBLES** (5), is on the north bank of the Tweed. Innerleithen (the *St. Ronan's Well* of Sir Walter Scott), formerly much visited for the sake of its mineral waters, is further to the east, at the point where the little stream of the Leithen joins the Tweed.

8. **DUMFRIES**, which is agricultural in its lower grounds, and pastoral towards the interior, includes the greater part of Nithsdale (or the valley of the river Nith, which enters the Solway Firth), and also the valleys of the Annan and the Esk—Annandale and Eskdale.

The town of **DUMFRIES** (17), its capital, stands on the left bank of the Nith; it is the largest town in the south-west portion of Scotland, and a great market for agricultural produce. Annan and Moffat are small places in this county.

9. **KIRKCOUBRIGHT** is hilly and pastoral in the north, and agricultural along the shores of the Solway Firth on the south.

Its county town, **KIRKCOUBRIGHT** (3), lies near the mouth of the river Dee, which enters the Solway Firth.

10. **WIGTOWN**, at the south-west extremity of Scotland, is also a pastoral region.

The small town of **WIGTOWN** (2), its capital, is on the shore of Wigtown Bay. Stranraer, at the head of Loch Ryan, and Portpatrick, on the shore of the North Channel, are small towns. Portpatrick is only 22 miles distant from Donaghadee, on the coast of Ireland.

11. **AYRESHIRE**, sometimes called the "Dairy of Scotland," embraces a pastoral tract of country in the south and east, but includes a manufacturing and coal-mining district in the north and along the sea-coast.

Its county town, **AYR** (25), at the mouth of the river Ayr, has considerable trade. Robert Burns was born in its vicinity—a short way to the southward, in a cottage beside the stream of the Doon. Kilmarnock, on the river Irvine, has large ironworks and extensive woollen manufactures. Ardrossan, Saltcoats, Irvine, Troon, and Girvan are thriving seaports.

12. **LANARKSHIRE** includes Clydesdale, the upper part of which is a pastoral region. But its lower portion is a populous seat of manufacturing and commercial industry.

**GLASGOW** (565, or with suburbs 771), on the banks of the Clyde, within the north-western border of Lanarkshire, is the centre at once of the cotton manufactures, the iron trade, and the foreign commerce of Scotland. It is, indeed, the commercial metropolis of North Britain, and is greatly superior to any other city of Scotland in number of inhabitants. Glasgow is, besides, the seat of an ancient university. A short distance to the southward is the battlefield of *Langside*, the scene of the last contest on behalf of the ill-fated Mary Queen of Scots (A.D. 1568).

**Airdrie**, to the east of Glasgow, is in the midst of extensive coal and iron works, and has also cotton and other manufactures. **Hamilton** and **Lanark** are smaller towns. Below Hamilton, on the Clyde, is *Bothwell Bridge*, the scene of a well-known skirmish between the Covenanters and the royal forces in 1679. **Lanark** (5), in upper Clydesdale, is the county town. Below it are the picturesque Falls of the Clyde, formed by the descent of the river over successive ledges of rock.

13. **RENFREWSHIRE** is manufacturing and commercial. It includes part of the coal and iron district, and possesses several flourishing ports on the lower Clyde.

**RENFREW** (6), the county town, is small and otherwise unimportant. **Paisley** (66), seven miles west of Glasgow, shares in the manufacturing industry of that city. **Port-Glasgow** (15) and **Greenock** (63) are both on the Clyde; the latter is the seat of an extensive foreign trade. **Johnstone**, south-west of Paisley, is an inland town.

## II. SEVEN NORTH-LOWLAND COUNTIES.<sup>1</sup>

1. **DUMBARTONSHIRE** (or **Lennox**) is Highland and pastoral in its northerly division, including the chief part of the shores of **Loch Lomond**. In the south it reaches to the banks of the Clyde. A detached portion of the county is in the plain further to the eastward.

The chief town, **DUMBARTON** (13), stands on the Clyde at the mouth of the little river **Leven**, which forms the outlet of **Loch Lomond**. The **Vale of Leven** is a busy scene of manufacturing industry, with cotton-works, &c. **Kirkintilloch**, a manufacturing town, is to the north-east of Glasgow.

2. **STIRLINGSHIRE** is manufacturing and trading in its eastern division, which is within the Lowland region; but its westerly portion stretches into the Highlands. The fertile "**Carse of Stirling**" is highly cultivated.

The county town, **STIRLING** (17), stands on the south bank of the **Forth**; its fine castle, on a lofty rock which overlooks the town, has been the scene of many events important in Scottish annals. **Stirling** has manufactures of woollen and cotton fabrics. **St. Ninians** and **Bannockburn**, both populous villages in its immediate vicinity (forming, in fact, suburbs of the town), also possess extensive woollen manufactures. **Bannockburn** recalls the memory of **Bruce's** great victory over the English in 1314. **Falkirk**, in this county, is a great coal and iron centre, and is historically noteworthy on account of two engagements which took place in its vicinity—one, a victory gained by **Edward I.** over the Scottish army in 1298; the other, a defeat sustained by the royal forces at the hands of **Prince Charles Edward's** followers in 1746. **Kilsyth**, on the southern border of the county, was the scene of **Montrose's** brilliant (though fruitless) victory in 1646.

3. **CLACKMANNANSHIRE** is enclosed by the counties of **Perth** and **Stirling**, and is the smallest county in Scotland. It is partly within the coalfield.

1. The areas and population of the North-Lowland Counties are as follows:—

(1) **Dumbarton**, 241 sq. m., pop. 94,511.  
 (2) **Stirling**, 447 sq. m., pop. 125,604.  
 (3) **Clackmannan**, 47 sq. m., pop. 23,433.

(4) **Kinross**, 72 sq. m., pop. 6,288.

(5) **Fife**, 492 sq. m., pop. 187,320.

(6) **Forfar**, 876 sq. m., pop. 277,788.

(7) **Kincardine**, 383 sq. m., pop. 35,647.

**Alloa** (10), its largest town, is on the left bank of the Forth, and has some trade in coal and iron. **CLACKMANNAN** is the county town. Alva has manufactures of shawls and tweeds.

4. **KINROSS** is enclosed between the counties of Fife and Perth, and is, on the whole, well cultivated. It includes Loch Leven—the largest lake within the lowland region.

The county town, **KINROSS** (2), is on the west shore of the lake. The castle of Loch Leven, on an island in the lake, was the temporary prison of Mary, Queen of Scots, and the scene of her romantic escape in 1568, immediately prior to the battle of *Langside*.

5. **FIFESHIRE**, a Lowland county, forms a peninsula, lying between the Firths of Forth and Tay. Its interior is hilly and pastoral, but a broad and fertile belt of country stretches along the coast,<sup>1</sup> on which are numerous seaport and fishing towns.

**CUPAR** (5) is the county town. Among the other towns are *Dunfermline*, *Burtonisland*, *Kirkcaldy*, *St. Andrews*, and *Falkland*. *Dunfermline* is a great seat of the linen manufacture, and has an ancient abbey church, within which are the remains of Robert Bruce. *St. Andrews* is the seat of the oldest of the Scottish universities.

6. **FORFARSHIRE**, or *Angus*, is principally within the Lowland region, and is (with Fife) the chief seat of the linen and jute manufacture, which is extensively pursued in several of its towns.

**FORFAR** (13), the county town, lies in the heart of the great plain of *Strathmore*. *Dundee* (153), on the Firth of Tay, is of larger size, and is one of the most considerable of the Scottish seaports. *Montrose*, also a thriving seat of trade, is on the coast of the North Sea. Midway between *Montrose* and *Dundee* is *Arbroath* (or *Aberbrothock*), the nearest port to the celebrated *Bell Rock*, or *Inchcape*. *Brechin* and *Coupar-Angus* (so called to distinguish it from the county town of Fife) are in this county.

7. **KINCARDINE**, or the *Mearns*, extends from Forfar to the banks of the *Dee*, and includes the most eastward portion of the *Grampians*. But the coast division of the county is *Lowland*.

**STONEHAVEN** (4), the chief town, is on the shore of the North Sea, and is an important herring-fishing station, as also are *Bervie*, *Findon*, and other fishing ports. From *Findon*, or *Finnan*, the name "*Finnan haddocks*" is derived.

### III. THREE SOUTH-HIGHLAND COUNTIES.<sup>2</sup>

1. **BUTESHIRE**, the most southward of the Highland counties, consists of the islands of *Bute* and *Arran*, in the *Firth of Clyde*.

1. James VI. compared Fife to a "beggar's mantle fringed with gold," alluding to the contrast between its fertile sea-board and comparatively sterile interior.

2. The areas and population of the Three South-Highland Counties are as follows:—

(1.) *Bute*, 271 sq. m., pop. 18,402.  
 (2.) *Argyle*, 2,218 sq. m., pop. 78,945.  
 (3.) *Perth*, 2,527 sq. m., pop. 126,123.

Arran is hilly, but Bute is level and fertile. The latter has the most salubrious climate in Scotland.

The county town, **ROTHESAY** (9), is on Bute, which is moderately elevated. The channel which divides Bute from the mainland is called the Kyles of Bute. Arran has a more rugged surface, and furnishes some granite; its chief town is Brodick, a small place on the east coast.

2. **ARGYLE** embraces a rugged Highland tract on the Scotch mainland, and includes many of the adjacent islands—amongst them Mull, Jura, and Islay; with Coll, Tiree, Colonsay, and many of smaller size. Staffa and Iona, off the west coast of Mull, are of the number.

The county town is **INVERARY**, near the head of Loch Fyne. **Campbeltown** (5), on the peninsula of Cantire, is of larger size. **Oban** (5) is a rising place on the western coast, near the entrance to Loch Linnhe. *Glencoe*, the scene of the infamous massacre of the Macdonalds in 1692, is a wild pastoral valley, which adjoins the south shores of Loch Leven,<sup>1</sup> one of the estuaries of the western coast.

3. **PERTHSHIRE** is Lowland in the east and centre; but its northern and western divisions include an extensive and rugged portion of the Highlands. It comprehends, in the south-west, the romantic district of the *Trossachs*, within which are embraced the wooded heights of Ben A'an and Ben Venue, with the winding shores of Loch Katrine, Loch Achray, and Loch Vennachar.

The city of **PERTH** (30) lies on the right bank of the Tay, immediately above the estuary which the river forms in its lower course. Near Perth (upon the opposite bank of the river) is *Scone*, the ancient coronation-place of the kings of Scotland. *Tippermuir*, the scene of one of the victories gained by Montrose (in 1644) during his brilliant but evanescent career of success, is a short distance to the south-west of Perth. The other towns of Perthshire—all of small size—are Dunblane, Doune, *Caillander*, *Dunkeld*, and *Crief*. Two miles to the eastward of Dunblane is *Sheriffmuir*, the scene of an indecisive engagement between the royalist and the rebel forces in 1715. The *Pass of Killiecrankie*, on the romantic banks of the Garry, which joins the Tummel<sup>2</sup> below the defile, is in the northern part of Perthshire. It was here that the leader of the Highland clans, Viscount Dundee, fell in the moment of victory over the forces of King William in 1689.

#### IV. NINE NORTH-HIGHLAND COUNTIES.<sup>3</sup>

1. **ABERDEENSHIRE** is Lowland towards the coast; but its interior belongs to the Highlands. Large numbers of cattle are reared in this county for the English market.

1. There are two lochs bearing this name—one in Kinross (the scene of Queen Mary's confinement and escape); the other, that referred to above, on the border-line between the counties of Argyle and Inverness. This latter is an arm of the sea.

2. The Tummel is an affluent of the Tay.

3. The areas and population of the Nine North-Highland Counties are as follows:—

(1.) Aberdeen, 1,970 sq. m., pop. 231,331.

(2.) Banff, 636 sq. m., pop. 64,167.

(3.) Elgin, 475 sq. m., pop. 43,448.

(4.) Nairn, 178 sq. m., pop. 10,019.

(5.) Inverness, 4,033 sq. m., pop. 33,262.

(6.) Ross & Cromarty, 3,129 sq. m., pop. 77,761.

(7.) Sutherland, 2,027 sq. m., pop. 21,640.

(8.) Caithness, 636 sq. m., pop. 37,151.

(9.) { Orkney, 375 sq. m., pop. 30,432.

{ Shetland, 561 sq. m., pop. 23,711.

The city of **ABERDEEN** (113), its capital, situated between the mouths of the rivers Dee and Don, is one of the most commercial places in Scotland, and is distinguished for its university. At the Bridge of Dee, two miles above Aberdeen, Montrose defeated the Covenanters in 1644. **Peterhead**, a flourishing port, is on the coast to the northward, and is the headquarters of the Greenland whale-fishery. **Fraserburgh**, another seaport, is still further north. **Inverury**, at the junction of the little river Ury with the Don, is a small inland town. **Balmoral Castle**, the Highland residence of our gracious Queen, is in this county, within the beautiful valley of the upper Dee, near its southern bank.

2. **BANFFSHIRE** is chiefly Lowland, but penetrates the Highland region in its southerly division. The noted distilleries of **Glenlivet** are in this county.

Its chief town, **BANFF** (7), is near the mouth of the river Deveron. **Portsoy** and **Cullen** are small towns on the coast.

3. **ELGIN**, or Moray, is Lowland in the north, but Highland in its southwardly portion. Its climate is remarkably mild.

The town of **ELGIN** (8), its capital, is a few miles distant from the coast, on the little river **Lossie**. **Forres** is further to the west, near the river **Findhorn**.

4. **NAIRNSHIRE**, a small county, is partly Lowland, but becomes hilly in the south. The level districts are along the coast, and are generally fertile.

The town of **NAIRN** (4) is on a small river of that name, at its entrance into the Moray Firth. **Auldearn**, a village lying a few miles south of Nairn, was the scene of one of Montrose's victories in 1645.

5. **INVERNESS** is entirely a Highland county. **Ben Nevis**, the highest mountain in Britain, is within its limits, which include a succession of bleak moorlands, high mountains, and narrow glens. The line of the Caledonian Canal crosses the county from north-east to south-west, passing through the narrow valley of **Glenmore**. The large island of **Skye** belongs to this county, as also do **Harris**, **North** and **South Uist**, and **Benbecula**, among those of the Hebrides lying further to the westward.

The town of **INVERNESS** (19), regarded as the capital of the Highlands, stands at the entrance of the river Ness into **Loch Beaulieu** (as the upper extremity of the Moray Firth is called). A few miles east is **Culloden Moor**, the scene of Prince Charles Edward's final defeat in 1746. Near **Fort William**, at the south-western extremity of the Caledonian Canal, and at the outlet of the river **Lochie** into **Loch Eil**, is **Inverlochy**, where Montrose gained, in 1645, the most brilliant of his victories. **Portree** is a small place on the east coast of **Skye**.

6. **ROSS** and **OROMARTY** (now united into one shire) comprehends a rugged Highland tract, which stretches across the country from the Moray Firth to the Atlantic coast. It includes **Lewis**, the largest of the Hebrides.

The county town is **TAIN** (2), on Dornoch Firth. **Dingwall**, further south, is a royal burgh and railway junction of some importance at the head of Cromarty Firth. **Stornoway** is a fishing station on the island of Lewis.

The town of **Cromarty** (1) is situated at the entrance of the magnificent estuary called Cromarty Firth—one of the finest of natural harbours. **Hugh Miller**, the geologist, was born in this town.

The formerly separate shire of Cromarty consisted of several small and detached portions of country, enclosed by Ross and the adjacent county of Sutherland.

7. **SUTHERLAND** is entirely Highland, and is the most thinly-populated county in Scotland. Immense numbers of sheep are reared in this county.

**DORNOCH**, the county town, is on the east coast, upon the northern side of the firth to which its name is given.

8. **CAITHNESS** includes the north-eastern extremity of the Scotch mainland. This county is level and generally sterile.

Its chief town, **WICK** (5), is a flourishing seaport—the chief seat of the herring fishery. **Thurso** is on the north coast of the island. Near **Duncansbay Head** is the site of the famous *John o' Groat's House*, the most northerly dwelling on the mainland of Scotland. Hence the popular saying, "From Land's End to John o' Groat's."

9. The county of **ORKNEY** and **SHETLAND** consists of the groups of islands so called. Both groups are nearly, if not entirely, destitute of trees, and are bleak and barren, with the exception of a few fertile tracts in the Orkneys.

**KIRKWALL** (3), situated on the largest of the Orkneys (called Pomona, or Mainland), is the county town. **Lerwick** (4), the principal town in the Shetlands, is on the east coast of Mainland, as the principal island of that group is named.

#### QUESTIONS ON SCOTLAND.

1. How is Scotland bounded?
2. Give in round numbers its length, breadth, and area.
3. Describe the coasts of Scotland.
4. Point out upon the map the following estuaries:—the Firth of Forth, Firth of Tay, Moray Firth, Loch Linnhe, Loch Fyne, the Firth of Clyde, and Glenluce Bay.
5. Enumerate the principal islands of Scotland.
6. What great natural division has Scotland with reference to the features of its surface?
7. In what parts of Scotland are the following:—Strathmore, Glenmore, the Grampian Mountains, the Ochil Hills, and the Pentland Hills?
8. Name the highest mountains in Scotland, with their elevation in feet.
9. Describe briefly the principal rivers and lakes of Scotland.
10. In what respect does the climate of Scotland differ from that of England?
11. What minerals occur in Scotland, and in what parts of the country?
12. What are the limits of the coal and iron district of Scotland?
13. Is Scotland more populous, or less so, than England? What portions of the country are most numerously peopled?
14. What are the principal industrial pursuits of the Scotch people?
15. What constitutes the chief industrial pursuit of the Highland population?
16. In what parts of Scotland are the cotton and linen manufactures most extensively carried on?
17. What are the means of communication?
18. Into how many counties is Scotland divided? Name the largest and the smallest of the number.
19. Are the counties of Edinburgh, Dumfries, Lanark, Argyle, and Inverness within the Highlands or the Lowlands?
20. Name some of the counties which are partly Highland and partly Lowland.

21. Which two of the counties are entirely insular?

22. What three counties are called also by the names of West, Mid, and East Lothian?

23. Where are the following places:—Edinburgh, Glasgow, Dumfries, Kilmarnock, Dundee, Aberdeen, and Inverness?

24. In what counties are the following towns respectively situated:—Dunbar, Kelso, Paisley, Falkirk, Montrose, St. Andrews, Dunfermline, and Inveraray?

25. Of what branches of manufacturing industry are Glasgow and Paisley the seat?

26. What manufacture is carried on chiefly at Dunfermline, Dundee, and other places on the east side of Scotland?

27. In what counties are the battlefields of Bannockburn, Pinkie, Prestonpans, and Culloden?

28. Point out the site of the following battlefields:—Langside, Kilsyth, Sheriffmuir, and Inverlochy.

29. In what part of Scotland is the district of the Trossachs? By what is it distinguished?

30. Where is the pass of Killiecrankie, and for what is it noteworthy?

31. To what county do the islands of Staffa and Iona belong? Point to their locality on the map, and say for what they are celebrated?

32. Name the chief towns of each of the following counties:—Bute, Kincardine, Roxburgh, Argyle, Sutherland, and Orkney and Shetland.

### III. IRELAND.

Ireland,<sup>1</sup> the third largest island of Europe, lies to the west of Great Britain.

The shores of Ireland and Great Britain make the nearest approach to each other between Fair Head and the Mull of Cantire, where the channel is only 18 miles wide, and are furthest apart along the 54th parallel, between Dundalk Bay and Morecambe Bay, a distance of about 140 miles. St. David's Head, the most westerly point of Wales, is about 50 miles distant from Carnsore Point on the opposite Irish coast.

**BOUNDARIES.**—On three sides—the *north*, *west*, and *south*—Ireland is bounded by the Atlantic Ocean; on the *east*, by the North Channel, the Irish Sea, and St. George's Channel.

Ireland is divided from *England* by the Irish Sea, from *Wales* by St. George's Channel, and from *Scotland* by the North Channel.

**EXTENT.**—The superficial extent of Ireland is 32,530 square miles, or rather more than one-half that of England and Wales.

The *greatest length* (from Malin Head to Mizen Head) is 290 miles.

The *mean length* (from Malin Head to Hook Head) is about 220 miles.

The *greatest breadth* (from Howth Head to Slyne Head) is 175 miles.

The *least breadth* (between Donegal and Belfast) is 90 miles.

**COASTS.**—The western and south-western coasts of Ireland are more indented than the eastern side of the island. The entire length of coast line, including the larger inlets, is about 2,000 miles, or 1 mile of coast to every 15 square miles of area.

The *eastern* coasts of Ireland are, on the whole, flat and regular, and the approach from Great Britain is obstructed by numerous sand-banks and rocks. The *northern*, *western*, and *southern* shores are, on the contrary, high, rocky, and in parts very irregular, especially in the south-west. The principal features to be noted are:—

1. **Capes.**—On the *north*, Fair Head (or Benmore), Bengore Head,<sup>2</sup>

1. Ireland (Gaelic), western isle. The native name is *Erim*. The Romans called it *Hibernia*. To the Phenicians it was known as *Ierne*. The ancients often called it the "Emerald Isle," on account of its verdure.

2. Off Bengore Head is the celebrated *Giant's Causeway*, composed of huge basaltic columns, forming a "causeway" 2,000 feet long and about 1,000 feet broad.



Malin Head, and Horn Head; on the *west*, Rossan Point, Achill<sup>1</sup> Head, Slyne Head, Loop Head, Dunmore<sup>2</sup> Head; on the *south*, Mizzen Head, Cape Clear, and Carnsore Point; on the *east*, Wicklow Head and Howth Head.

**Malin Head** is the *most northerly* point of Ireland; **Dunmore Head** the *most westerly*; and **Mizzen Head** the *most southerly*. **Cape Clear** is the extreme point of a small island which lies off the south-west coast.

2. **Inlets.**—The principal inlets are:—On the *east*, Dublin Bay, Dundalk Bay, Carlingford Lough,<sup>3</sup> Dundrum Bay, Strangford Lough, and Belfast Lough; on the *north*, Lough Foyle and Lough Swilly; on the *west*, Donegal Bay, Sligo Bay, Clew Bay, Galway Bay, the estuary of the Shannon, Dingle Bay, Kenmare River, and Bantry Bay; on the *south*, Cork Harbour and Waterford Harbour.

Many of the numerous inlets on the southern and western shores of Ireland form splendid harbours. Those of **Bantry Bay** and **Cork** could contain the entire British navy, and no less than twelve others could float the largest men-of-war. On the east coast, the only good harbour is **Strangford Lough**. Dublin Bay is partially protected by two granite sea-walls.

3. **Islands.**—None of any considerable magnitude or importance. The principal are:—

Rathlin and Tory, on the *north*; Clear and Spike,<sup>4</sup> on the *south*; Dalkey, Ireland's Eye, and Lambay, on the *east*; North Aran, Achill, Clare, Aran, and Valentia,<sup>5</sup> on the *west*.

**MOUNTAINS.**—Ireland is generally level in the interior, but has mountain-tracts adjoining various portions of its coast. The highest mountains are in the south-west, within the county of Kerry, but there are nowhere any continuous chains. The following are the principal mountain ranges:—

1. The **Mourne Mountains**, between Dundrum and Dundalk Bays, attain in *Slieve Donard* a height of 2,796 feet above the sea.

2. The **Wicklow Hills**, near the east coast, are famed for their scenery. *Lugnaquilla* attains an elevation of 2,039 feet above the sea.

3. The **Mountains of Donegal** culminate in *Mount Errigal*, 2,466 feet in height.

4. The **Kerry Mountains**, in the south-west, form several parallel ranges, separated by Dingle Bay and other inlets. The highest point is *Carruntuohill*, 3,414 feet, in Macgillicuddy Reeks.

5. The **Mountains of Connaught** include the Nephin Beg (2,646 feet) and the Mountains of Connemara (2,688 feet).

Other less important ranges are the Slieve Bloom, 1,733 feet; Silvermine, 2,278; Galty, 3,015; and the Knockmeildown Mountains, 2,609.

**PLAINS.**—A nearly level plain extends across the middle part of the island, from Dublin Bay on the east to Galway Bay on the west. In some parts of this plain, and also in the various mountain regions, there are extensive bogs.<sup>7</sup> These bogs furnish abundance of

1. Achill, eagle.

2. Dunmore, *Dun*, a fort, and *more*, great.

3. The term *lough*, in Ireland, is equivalent to *loch* in Scotland. It is given both to inland lakes and to the nearly land-enclosed inlets along the coast.

4. Spike Island is in Cork Harbour, and is fortified.

5. Valentia: on this island is an important telegraph station.

6. Slieve, Irish, *Sliaibh*, a mountain.

7. Of the bogs of Ireland, the *black bog* is most valuable for fuel, but it is not so capable of being reclaimed as the *red* and *brown bogs*.

peat (used as fuel), and are capable, when drained, of being brought under cultivation. The Bog of Allen, in Leinster, is the largest.

The total extent of bog-land is about 5,000 square miles, or nearly one-seventh of the entire area of the island.

**RIVERS.**—Ireland abounds in inland waters. The principal rivers are :—

1. On the *north*, the **Bann** (100 miles long), draining Lough Neagh, and the **Foyle**, flowing into Lough Foyle.

2. On the *east*, the **Lagan** (42 miles), flowing into Belfast Lough; the **Boyne**<sup>1</sup> (80 miles), which is navigable to Navan; the **Lifey** (75 miles), which has the metropolis of Ireland on its banks; the **Slaney** (70 miles), flowing into Wexford Haven.

3. On the *south*, the **Barrow** (114 miles long), which rises in the Slieve Bloom Mountains, and is navigable to Athy, 60 miles from the sea; the **Suir** and the **Nore**, tributaries of the Barrow; the **Blackwater** (90 miles), which rises in the Kerry Mountains and falls into Youghal Harbour; and the **Lee** (60 miles), whose estuary forms the splendid harbour of Cork.

4. On the *west*, the **Shannon** (224 miles), the longest river in Ireland, which flows from a small pond in Cavan, through Loughs Allen, Ree, and Derg, into the Atlantic, and is navigable to Lough Allen, 213 miles from the sea.

**LAKES.**—The largest lake in Ireland is *Lough Neagh* (150 square miles), in the province of Ulster, which is also larger than any other lake in the British Islands—being more than three times the size of Loch Lomond in Scotland, and fifteen times larger than Windermere in England. The other principal lakes are *Lough Erne*, *Lough Allen*, *Lough Ree*, *Lough Derg*, *Lough Mask*, *Lough Corrib*, and the *Lakes of Killarney*.

Lough Allen, Lough Ree, and Lough Derg are within the course of the river Shannon. The **Lakes of Killarney** (total area, 10 square miles), in Kerry, are celebrated for their beautiful scenery. The highest mountains in Ireland rise immediately above their western shore.

**CLIMATE and VEGETATION.**—The climate of Ireland is moister than that of England. This preserves a more constant verdure to the fields, and a superior freshness and brightness of colour to its general vegetation. The winters are nearly always mild, and the prevalent winds, which are from the west, are laden with the warm and moist vapours derived from the waters of the Atlantic. The vegetation native to the coasts of Kerry (the south-westernmost county) is especially distinguished for its rich luxuriance.

Ireland is at all times much more humid than England, and more rain falls on its western and southern than on its eastern coasts. Thus the average annual *rainfall* at Cork is 40 inches, but at Dublin only 31 inches.

**PRODUCTIONS.**—In respect of mineral produce, Ireland is inferior to England and Scotland in one essential particular—*coal*. This affects injuriously its manufacturing industry. The coalfields of Ireland—diffused at wide distances apart, through the north-east,

1. The "Battle of the Boyne" was fought on the 1st of July, 1690.

midland, and south-western counties—are of limited extent compared to those of Great Britain, and their produce small in amount. Peat is the fuel most generally consumed, but coal is imported from the English and Scotch seaports.

Ireland has ores of *copper, lead, iron,* and other mineral produce, and possesses a rich variety of *marbles and building-stones.*

**INHABITANTS.**—Ireland has rather more inhabitants than Scotland, but very much fewer than England. It contained, in 1891, a population of nearly  $4\frac{1}{2}$  millions,<sup>1</sup> or fewer by  $1\frac{1}{2}$  millions than had belonged to it eighty years earlier, and little more than one-half of its population in 1841. But vast numbers of the Irish people emigrated to other lands during the intervening period; and famine, with its attendant sickness and suffering, contributed to thin the population.

**Race and Language.**—The great majority of the Irish population belong to the Celtic race—the same that peoples the Highlands of Scotland and the mountain-region of Wales. It is chiefly in the province of Ulster (the north-east part of the island) that the Anglo-Saxon race is found settled on Irish soil. The people of Ulster are the descendants of immigrants from the Scotch Lowlands, and preserve the social habits and industry of Scotland. People of English descent are numerous in the neighbourhood of Dublin, and are also scattered over every portion of the island. The native language of Ireland, called *Erse*, a Celtic dialect, is rapidly becoming superseded by the English tongue.

**INDUSTRIAL PURSUITS.**—As regards industry, Ireland is chiefly an agricultural country, and a very large portion of the land is in pasture. Cattle and pigs, with various farm produce, constitute (over by far the greater part of the island) its chief industrial wealth. Manufactures flourish principally in Ulster, where the linen manufacture is pursued on a scale of great extent. Woollen and cotton goods are also made, but in smaller quantities. A great part of the commerce of Ireland consists in the *export* of its agricultural produce to the English markets, and in the *import* of coal, with various articles of British and foreign produce.

The principal ports are Dublin, Belfast, Cork, Waterford, Limerick, Galway, and Londonderry. The greater part of the trade with Great Britain is carried on between these ports and Glasgow, Liverpool, and Bristol.

**Internal Communication** is facilitated by excellent turnpike roads, over 2,700 miles of railway connecting Dublin with all the large towns, several canals and navigable rivers, and efficient postal and telegraphic services.

The main lines of railway are:—

- (1.) The **Great Southern and Western**, from Dublin to Cork, Waterford, and Limerick.
- (2.) The **Midland and Great Western**, from Dublin to Galway.
- (3.) The **Great Northern**, from Dublin to Belfast.
- (4.) The **Irish and North Western**, from Dundalk to Londonderry.
- (5.) The **Belfast and Northern Counties**, from Belfast to Londonderry.
- (6.) The **Dublin and Belfast**; and (7) the **Dublin, Wicklow and Wexford**.

1. An average of only 145 per square mile, or less than one-third of that of England and

Wales. In 1841, the population numbered 8,175,124.

The principal canals are :—

- (1.) The *Royal Canal* } connecting Dublin and the Shannon ; constructed  
 (2.) The *Grand Canal* } by Government at a cost of £3,000,000.

**COUNTIES and TOWNS.**—Ireland is divided into four provinces, which are subdivided into thirty-two counties. The provinces are, *Leinster* in the east, *Ulster* in the north, *Connaught* in the west, and *Munster* in the south.

1. *Leinster* contains twelve counties :—Dublin, Wicklow, Wexford, Kilkenny, Carlow, Kildare, Queen's County, King's County, Westmeath, Longford, Meath, and Louth.

2. *Ulster* contains nine counties :—Armagh, Down, Antrim, Londonderry, Donegal, Tyrone, Fermanagh, Monaghan, and Cavan.

3. *Connaught* includes five counties :—Leitrim, Roscommon, Sligo, Mayo, and Galway.

4. *Munster* contains six counties :—Clare, Limerick, Tipperary, Waterford, Cork, and Kerry.

1. **LEINSTER.**—The counties and principal towns in this province are as follows, the name of the county town being in each case distinguished by italic letters :—

County.	Area. Sq. m.	Population. (1891).	Towns.
DUBLIN . . . . .	354	429,000	<i>Dublin</i> , Kingstown.
WICKLOW . . . . .	781	61,000	<i>Wicklow</i> , Arklow, Bray.
WEXFORD . . . . .	901	111,000	<i>Wexford</i> , New Ross.
KILKENNY . . . . .	796	87,000	<i>Kilkenny</i> , Callan.
CARLOW . . . . .	346	40,000	<i>Carlow</i> , Tullow.
KILDARE . . . . .	654	70,000	<i>Athy</i> , Naas, Maynooth.
QUEEN'S COUNTY . . . . .	664	64,000	<i>Maryborough</i> , Mountmellick.
KING'S COUNTY . . . . .	772	65,000	<i>Tullamore</i> , Parsonstown.
WESTMEATH . . . . .	708	85,000	<i>Mullingar</i> , Athlone.
LONGFORD . . . . .	421	52,000	<i>Longford</i> , Edgeworthstown.
MEATH . . . . .	906	76,000	<i>Trim</i> , Navan, Kells.
LOUTH . . . . .	315	70,000	<i>Dundalk</i> , Drogheda.

**DUBLIN** (353), the capital of Ireland, stands at the mouth of the river Liffey. It is less populous than either Manchester, Liverpool, or Glasgow, but it is a great seat of trade, and has numerous fine public buildings. Dublin has the rank of an archiepiscopal city, and possesses two cathedrals. It is also the seat of several universities. **Kingstown** (17), on the south side of Dublin Bay, has a fine artificial harbour, and is the mail-packet station between Dublin and England, and for steamers plying to Holyhead and Liverpool. A short distance to the south of Dublin begins the romantic district of the Wicklow Mountains.

**Kilkenny** (11), on the river Nore (an affluent of the Barrow), is second among the towns of Leinster in point of population, and is the largest inland town in the island. **Wexford** (12), at the outlet of the river Slaney into Wexford Haven, is a port of considerable trade. **Drogheda** (12), and **Dundalk** (13), to the northward of Dublin, are also flourishing commercial ports. **Drogheda** stands on the river Boyne, near its mouth. The *Battle of the Boyne*, in 1690, between the armies of William III. and James II., was fought on the banks of the river a short distance above

the town. **Athlone**, on the Shannon, below its issue from Lough Ree, is a thriving inland town, partly in Leinster and partly in Connaught.

**2. ULSTER.**—The counties and principal towns in Ulster are named in the following table :—

County.	Area.	Population.	Towns.
	Sq. m.		
ARMAGH . . . . .	513	143,000	<i>Armagh</i> , Portadown, Lurgan.
DOWN . . . . .	957	266,000	<i>Downpatrick</i> , Newry, Donaghadee.
ANTRIM . . . . .	1,190	427,000	<i>Belfast</i> , Lisburn, Carrickfergus.
LONDONDERRY	816	151,000	<i>Londonderry</i> , Coleraine.
DONEGAL . . . . .	1,870	185,000	<i>Lifford</i> , Ballyshannon.
TYRONE . . . . .	1,260	171,000	<i>Omagh</i> , Strabane, Dungannon.
FERMANAGH . . . .	714	74,000	<i>Enniskillen</i> , Newtown Butler.
MONAGHAN . . . . .	500	86,000	<i>Monaghan</i> , Clones.
CAVAN . . . . .	746	111,000	<i>Cavan</i> , Belturbet, Cootehill.

**BELFAST** (273) is the largest city of Ulster, and the chief seat of the linen manufacture of Ireland. It has also manufactures of cotton, with potteries, glassworks, &c., and a larger amount of foreign trade than any other city in the island. **Armagh** has a great share in the linen manufacture, and is an archiepiscopal see—the ecclesiastical metropolis of Ireland. **Londonderry** (33), on the river Foyle, has considerable trade, and is famous in history for the gallant defence made by its Protestant inhabitants against the besieging army of James II. in 1689. **Coleraine** (6), in the same county, near the mouth of the Bann, is a flourishing port.

The *Giant's Causeway*, on the north coast of Antrim, is one of the chief natural wonders of the kingdom; it is a vast assemblage of columns of basaltic rock, which line a part of the shore, and advance, by successive rows, into the sea.

**3. CONNAUGHT.**—The counties and chief towns of Connaught are as follow :—

County.	Area.	Population.	Towns.
	Sq. m.		
LEITRIM . . . . .	613	78,000	<i>Carrick-on-Shannon</i> , Leitrim
ROSCOMMON . . . . .	949	114,000	<i>Roscommon</i> , Boyle.
SLIGO . . . . .	721	98,000	<i>Sligo</i> , Ballymote.
MAYO . . . . .	2,126	218,000	<i>Castlebar</i> , Westport.
GALWAY . . . . .	2,452	214,000	<i>Galway</i> , Tuam, Loughrea.

**GALWAY** (14), the county town, is a seaport and railway terminus, near the head of Galway Bay. At one time it was expected that Galway, with its fine harbour and floating dock, would become important as a mail packet station for America. Some distance to the westward begins the romantic tract of country known as *Connemara*, a region of alternate hills and valleys, with enclosed lakes and mountain streams. **Aughrim**, a village in the eastern part of the county (a few miles distant from the right bank of the Suck), witnessed a decisive victory gained by the army of William III. over the troops of James II. in 1691. **Sligo** (10), a port at the head of Sligo Bay, has considerable trade.

4. **MUNSTER** includes the following counties and towns:—

County.	Area.	Population.	Towns.
CLARE	Sq. m. 1,294	123,000	<i>Ennis</i> , Kiltrush, Killaloe.
LIMERICK	1,064	158,000	<i>Limerick</i> , Rathkeale, Newcastle.
TIPPERARY	1,659	122,000	<i>Clonmel</i> , Carrick, Cashel, Tipperary.
WATERFORD	721	98,000	<i>Waterford</i> , Dungarvan, Lismore.
CORK	2,890	436,000	<i>Cork</i> , Youghal, Bandon, Kinsale.
KEBBY	1,856	178,000	<i>Tralce</i> , Killarney, Listowel.

**Limerick** (37) is second in size among the cities of Munster, and is rich in historic memories. It was in former days the stronghold of the Roman Catholic cause, and sustained two memorable sieges in behalf of King James II. in 1690-91. Limerick stands on either bank of the Shannon, a short way above the estuary. **Clonmel** (10), on the Suir, is an inland town of some importance. **Waterford** (22), also on the Suir, a short way above its junction with the Barrow, shares largely in the export trade of the island, and has extensive commercial relations with Bristol.

**CORK** (75) is the third city in Ireland in point of population, and is the largest among the cities of Munster. It stands on the Lee, 10 miles above the entrance of that river into Cork Harbour. Cork has great foreign trade. **Queenstown** (at which the larger class of vessels belonging to Cork load and discharge their cargoes) is on an island in Cork Harbour. **Youghal** (6) and **Kinsale** (4), one to the east, the other westward of Cork, are thriving seaports, at the mouths, respectively, of the rivers Blackwater and Bandon.

The varied character of the south-western shores of Ireland deserves especial notice. Of its many inlets the finest is *Dingle Bay*, which penetrates inland for upwards of thirty miles. *Valentia Island* lies at its entrance, on the southern side. The beautiful *Lakes of Killarney*, in this part of Ireland, are three in number—an Upper, Middle, and Lower Lake. The town of **Killarney** (6) is close beside the lower lake.

## QUESTIONS ON IRELAND.

1. By what is Ireland divided from Great Britain, and how is it bounded?
2. Describe briefly the coasts, and name the principal capes and inlets of Ireland.
3. Distinguish between the portions of Ireland that are mountainous and those which possess a level surface.
4. Name the highest mountains of Ireland.
5. Enumerate the chief rivers of Ireland.
6. Name the principal lakes of Ireland. Which is the largest? and what proportion does it bear to the largest of the Scottish and English lakes?
7. Which three of the lakes belong to the course of the Shannon?
8. By what is the climate of Ireland distinguished from that of England?
9. What mineral produce has Ireland? In what particular, in this regard, is it inferior to Great Britain?
10. Is Ireland more or less populous than England and Scotland?
11. To what race do the majority of the Irish people belong?
12. In what respect do the people of Ulster differ from the population of the island in general?
13. In what does the industrial produce of Ireland chiefly consist?
14. In what part of the island does manufacturing industry flourish most, and what are the means of internal communication?
15. Into what number of counties, and into how many provinces, is Ireland divided? Name the provinces.
16. How many counties are in Leinster? How many in Ulster, Connaught, and Munster respectively?
17. Name the counties within (1) Leinster; (2) Ulster; (3) Connaught; and (4) Munster.
18. In what counties are Dublin, Athy, Maryborough, Tullamore, and Dundalk respectively?
19. On what rivers are Dublin, Kilkenny, Wexford, Drogheda, and Athlone?
20. What noteworthy event distinguishes the neighbourhood of Drogheda?
21. What place ranks first, in point of size, among the cities of Ulster, and by what kind of industry is it distinguished?
22. What city ranks as the ecclesiastical metropolis of Ireland, and in what county is it?
23. On what rivers are Londonderry and Coleraine situated?
24. What historical event distinguishes Londonderry?
25. Where is the Giant's Causeway, and of what does it consist?
26. Describe briefly the largest city of Connaught.
27. In what county is the village of Aughrim, and for what is it noteworthy?
28. What place is largest, and what second in size, among the cities of Munster?
29. Upon what rivers are Cork, Kinsale, Limerick, Waterford, and Clonmel?
30. For what is Limerick historically distinguished?
31. In what county are the Lakes of Killarney?

## THE UNITED KINGDOM.

Though comparatively small in *area*, and surpassed by many other countries in point of *population*, the United Kingdom of Great Britain and Ireland is the greatest commercial and manufacturing country in the world.

The **industrial and commercial supremacy** of the United Kingdom is due to its splendid *geographical position* and almost unparalleled *development of coast-line*, a favourable *climate* and an *abundant supply of coal*, the most essential of all minerals, and *iron*, the most useful of all metals, the *energy* and *enterprise* of the people, ample *capital* and efficient *labour*, unrivalled *facilities for carrying on industrial operations* on a vast scale, *colonies* and *dependencies* in all parts of the globe, and a *mercantile marine* larger than the merchant navies of all other countries taken together.

**INDUSTRIES.**—**Agriculture** and **stock-raising** are important industries, and the **fisheries** are a great source of wealth, but **mining**, especially for coal and iron, **manufacturing** and **commerce**, occupy and support most of the people of the United Kingdom.

**Agriculture.**—England is the most highly cultivated country in the world, but most of the land in Scotland, Ireland, and Wales is in **pasture**.

**Fishing** is an important industry, especially along the eastern coasts of Scotland and England. Upwards of **30,000 boats** and **125,000 men** are employed in the British sea-fisheries, and the value of the fish landed every year is about 12 or 13 millions sterling.

**Mining** is one of the most important of British industries. Great Britain contains vast stores of **mineral wealth**—in fact, no other country in the world possesses in such variety and abundance the material elements of prosperity.

The **coalfields** of England and Wales, and Southern Scotland, are by far the largest and richest in Europe, and the most productive in the world. The annual production of coal in the United Kingdom, for manufacturing purposes, household use, and for export, amounts to the enormous quantity of nearly **180 million tons**, or more than one-half the entire output of all other countries taken together. Coal-mining and the coal trade employ directly about **six hundred thousand men**, and the export trade in coal alone employs a very large amount of shipping.

Iron-ore, by far the most valuable of all metallic ores, occurs abundantly within and near the coal areas of England and Wales and Southern Scotland, and there are also rich deposits of this ore in Ireland. The **annual production of iron-ore** in the United Kingdom is about **14½ million tons**, from which nearly **5½ million tons** of metal are produced.

**MANUFACTURES.**—The United Kingdom is the chief manufacturing country in the world, and in England and Wales, and Lowland Scotland, more people are engaged in manufacturing pursuits than in any other branch of industry.

The most important manufacturing industries of the United Kingdom are the great textile manufactures and metal industries, with the chemical industries, and the leather manufacture. The making of earthenware, glass, paper, watches and clocks, &c., are all important industries, but none of them are upon a scale of such magnitude as the textile fabrics and metal wares, chemical and leather goods, which form the great staples of British manufacturing industry.

**TRADE and COMMERCE.**—In trade and commerce, as well as in mining and manufactures, the United Kingdom surpasses all other countries, its enormous internal trade, merging into a gigantic foreign trade, equalling in value one-fifth of the entire trade of the world.

The internal trade of the United Kingdom is very large, and the transport of goods and produce from place to place is quickly and easily effected by means of splendidly constructed railways, excellent roads, numerous canals, and navigable rivers.

The foreign commerce of the United Kingdom is by far the most gigantic in the world, the total Annual Trade with foreign countries and British Possessions now reaching the enormous amount of 748 millions sterling, or one-fifth of the value of the entire commerce of the world.

Of the foreign trade of the United Kingdom over 90 per cent. falls to the share of *England*, 8 per cent. to *Scotland*, and less than 2 per cent. to *Ireland*.

Our foreign trade is carried on chiefly with the *United States*, *India*, *France*, *Australasia*, *Germany*, *Holland*, *Russia*, *Belgium*, *British North America*, *South Africa*, *Spain*, the *Argentine Republic*, and *China*. Our annual trade with these countries ranges between 11 millions sterling with *China* and 125 millions with the *United States*.

**Imports and Exports.**—In 1890, the imports and exports were larger than ever they had been before, the imports amounting to 421 millions sterling, or over £11 per head of the population, and the exports to 327 millions sterling, or £8, 10s. for every inhabitant, the total trade thus reaching the enormous sum of 748 millions sterling, or nearly £20 per head of the population.

British imports consist chiefly of articles of food and raw materials for our manufactures, while British exports are principally manufactured goods, coal, metals, and chemicals.

The chief markets for British manufactures and other products are *India*, *Australasia*, *Canada*, and *South Africa*, within the empire; and the *United States*, *Germany*, *France*, the *Argentine Republic*, *Holland*, *Italy*, *Belgium*, *Brazil*, *Turkey*, and *China*, among foreign countries.

More than half the foreign trade of the United Kingdom is carried on through the four great ports of *London*, *Liverpool*, *Cardiff*, and *Newcastle*.

The next largest ports in order of tonnage are *Hull*, *Glasgow*, *Newport*, *North and South Shields*, *Sunderland*, *Southampton*, *Middlesborough*, *Swansea*, *Dover*, *Leith*, *Grimsby*, and *Harwich*, each of which have a 'movement' of over a million tons a year. Less than a million tons entered and cleared at *Warrington*, *Bristol*, *Dublin*, and *Belfast*.



**CONSTITUTION and GOVERNMENT.**—The United Kingdom of Great Britain and Ireland constitutes, in form of government, a Hereditary and Limited Monarchy.

The *executive power* is nominally in the hands of the Sovereign; the *legislative power* is divided between the Sovereign, the House of Peers, and the House of Commons—the last being a Representative Assembly, elected by qualified classes of the people at large. The House of Commons alone has the right to regulate the taxes and expenditure of the kingdom, and the Ministers of the Crown are responsible to it for their public proceedings. The people of the British Islands thus enjoy the blessings of a *free Constitution*. The expression of opinion is free to all classes.

The annual *Revenue*, which is chiefly derived from the *Customs, Excise, Stamps and Taxes*, and the *Post Office and Telegraphs*, and *Expenditure*, mainly on account of the *Public Debt*, the *Army and Navy*, and the *Civil Services*, each amounts to about 90 millions sterling; while the *National Debt* amounts to 690 millions.

The British *Army* is small compared with the huge armies of continental powers, but the *Navy* is the largest and most powerful in the world.

**RELIGION and EDUCATION.**—There is perfect *religious equality* and absolute *freedom of worship* in our country. *Elementary education* is compulsory in both Great Britain and Ireland, and was made free in Scotland in 1889, and in England and Wales in 1891. *Higher education* is amply provided for by public and private schools, colleges, and universities.

The *Established Church of England* is *Protestant Episcopal*, and is under the government of 2 archbishops and 32 bishops. The *Established Church of Scotland* is Presbyterian in form, and is under the supreme control of a *General Assembly*. There is no *State Church* in Ireland, but the majority of the people belong to the *Roman Catholic Church*.

As regards education, Scotland is far in advance of both England and Ireland. *Elementary Education* is *compulsory* in each country, and was made *free* in Scotland in 1889, and in England and Wales in 1891. The *total expenditure on elementary education* in the British Isles is no less than 10 millions a year.

*Higher Education* is provided for by the *Universities of Oxford, Cambridge, Durham, Victoria, and London* (an examining body only) in England; *Edinburgh, Glasgow, St. Andrews, and Aberdeen* in Scotland; and *Dublin* in Ireland. Besides these Universities, there are *University Colleges at London, Liverpool, Manchester, Leeds, Birmingham, Bristol, Newcastle, Nottingham, and Sheffield* in England; at *Aberystwith, Bangor, and Cardiff* in Wales; and *Dundee* in Scotland. In Ireland, higher education is given in the *Queen's Colleges at Belfast, Cork, and Galway*.

The *Public and Grammar Schools*, as well as the *Private Schools and Colleges* of England and Wales, are not under Government control; in Scotland a large number of higher-class schools are inspected, and in Ireland there are about 1,500 superior schools. There are numerous *Training Colleges* for elementary teachers, and a large number of *Science and Art Classes* in connection with the Science and Art Department at South Kensington. *Medical Schools* are attached to most of the large hospitals and some of the universities and schools, and there are several *Engineering and Agricultural Colleges*, and *Naval and Military Schools*.

**THE BRITISH EMPIRE.**—Besides Great Britain and Ireland, the British Empire embraces a vast number of Colonies, Protectorates, and Dependencies, including amongst them territories in every quarter of the globe.

In Europe, the British flag floats over *Gibraltar*, which commands the entrance to the Mediterranean, and *Malta*, a fortified coaling-station and entrepôt for British goods.

The British Empire in India extends over a territory nearly one-half the area and about three-fourths the population of the Continent of Europe. Our *Indian Empire* embraces nine Provinces under direct British rule, and a large number of tributary Native States.

Other British Possessions in Asia are *Cyprus*, in the Eastern Mediterranean; *Aden*, on the south coast of Arabia, with the islands of *Perim* and *Kuria Muria*; *Ceylon*, a large island in the Indian Ocean to the south-east of India; the *Straits Settlements* and *Protectorates* in the *Malay Peninsula*; *Hong Kong* and *Kowloon* in China; and *British North Borneo*, *Saravak*, *Brunet*, and *Labuan* in the East Indian Archipelago.

In Africa, we have the West, South, and East African Colonies and Protectorates on the mainland, together with the islands of *Ascension* and *St. Helena* off the west coast, and *Mauritius*, *Zanzibar*, *Pemba*, *Seychelles*, *Amirantes*, and *Socotra*, off the east coast. *British West Africa* includes the Gambia, Sierra Leone, the Gold Coast, Lagos, and the Niger Protectorate, with its dependencies, Sokoto, Gando, Bornu, and Adamawa. *British South Africa* embraces the Cape Colony, Natal, Bechuanaland, Basutoland, Zululand, and Southern Zambesia. *Ibea*, or *British East Africa*, a vast region extending from the coast to the Victoria Nyanza and the Upper Nile, and *British Central Africa* or Northern Zambesia, which includes the inland districts between the Zambesi and Lake Nyassa, together with the *Somali Coast* Protectorate, complete our possessions on the mainland. The islands of *Zanzibar* and *Pemba* were declared a British Protectorate in 1890.

The British Empire in America includes the vast *Dominion of Canada*, *Newfoundland*, the *British West Indies*, *British Honduras*, *British Guiana*, and the *Falkland Islands*.

**British Australasia** is formed of the five great colonies into which Australia is divided, namely, *New South Wales*, *Victoria*, *Queensland*, *South Australia*, and *Western Australia*, together with the islands of *Tasmania*, *New Zealand*, *Fiji*, and the south-eastern part of *New Guinea*.

In the **Western Pacific**, a number of small islands and island-groups are British Possessions or British Protectorates, but are not included in any colony.

The total area of the British Empire is thus 11 million square miles, or more than *one-fifth* of all the land of the globe, while the population numbers over 366 millions, or about one-fourth of the total population of the world.

The British Possessions and Dependencies in Asia alone have an area of nearly 2 million square miles, and a population of over 285 millions; while the Protectorates and Spheres of Influence, defined within recent years in the Dark Continent, are estimated to add 2 million square miles more of land, with perhaps 85 million people, to the already extensive British territories in Africa. Excluding India, the *Colonies* proper have an area of nearly  $7\frac{1}{2}$  million square miles, and a population of 20 millions.

## EXAMINATION QUESTIONS.

1. What rank in the world does Great Britain hold as regards commerce and manufactures?  
 2. To what is the supremacy of the United Kingdom in these respects due?  
 3. What are the chief industries in Great Britain and Ireland? Give some particulars of each of them.  
 4. What are the chief features in the vast foreign trade carried on by the United Kingdom? What proportion of this trade is contributed by Scotland and Ireland?

5. Point out on map of the British Isles the chief seaports. Which of them are the most important?  
 6. Under what form of government is the United Kingdom?  
 7. Give some particulars as to religion and education in Great Britain and Ireland.  
 8. Make out a list of the British colonies and dependencies in each quarter of the world. What is the total area and population of the Empire?

## THE BRITISH EMPIRE.

	Area in sq. m.	Population.		Area in sq. m.	Population.
<b>IN EUROPE:—</b>			<b>IN AFRICA:—continued.</b>		
The United Kingdom.	121,451	37,583,153	Lagos . . . . .	1,071	100,000
England and Wales . . . . .	58,186	29,001,018	The Niger Protectorate . . . . .	500,000	20,000,000
Scotland . . . . .	30,417	4,033,103	Ascension . . . . .	35	360
Ireland . . . . .	32,558	4,706,162	St. Helena . . . . .	47	4,116
The Isle of Man . . . . .	230	55,598	Mauritius . . . . .	705	390,000
The Channel Islands . . . . .	75	92,272	Zanzibar and Pemba . . . . .	985	377,998
Gibraltar . . . . .	2	23,755	Socotra . . . . .	1,332	10,000
Malta . . . . .	117	165,662			
<b>IN ASIA:—</b>			<b>IN AMERICA:—</b>		
India . . . . .	1,687,104	298,696,960	The Dominion of Canada . . . . .	3,426,383	4,329,411
British India . . . . .	944,108	220,530,000	Newfoundland . . . . .	42,300	197,325
Federal States . . . . .	642,996	66,107,860	The British West Indies—		
Ceylon . . . . .	25,364	3,006,239	Jamaica . . . . .	4,424	630,491
Cyprus . . . . .	3,584	202,291	The Bahamas . . . . .	5,450	48,000
Aden and Perim . . . . .	70	41,910	The Leeward Islands . . . . .	701	122,760
The Straits Settlements . . . . .	1,472	506,577	The Windward Islands . . . . .	808	135,976
British North Borneo . . . . .	30,000	180,000	Trinidad & Tobago . . . . .	1,968	223,737
Labuan . . . . .	81	6,000	Barbados . . . . .	166	182,322
Sarawak . . . . .	50,000	300,000	The Bermudas . . . . .	20	15,384
Brunei . . . . .	3,000	—	British Honduras . . . . .	7,660	31,471
Hong-Kong . . . . .	29	221,441	British Guiana . . . . .	109,000	284,837
			The Falkland Islands . . . . .	6,800	1,780
<b>IN AFRICA:—</b>			<b>IN AUSTRALASIA:—</b>		
The Cape Colony . . . . .	221,311	1,527,224	New South Wales . . . . .	310,700	1,134,207
Natal . . . . .	20,460	548,913	Victoria . . . . .	87,884	1,140,411
Basutoland . . . . .	9,720	218,902	Queensland . . . . .	688,467	363,718
Zululand . . . . .	8,900	180,000	South Australia . . . . .	903,690	315,049
Bechuanaland . . . . .	222,000	—	Western Australia . . . . .	1,060,000	49,732
Zambesia . . . . .	500,000	—	Tasmania . . . . .	28,215	148,667
British East Africa . . . . .	1,000,000	13,500,000	New Zealand . . . . .	104,471	626,530
The North Somali Coast . . . . .	30,000	240,000	British New Guinea . . . . .	88,000	150,000
The Gambia . . . . .	2,700	50,000	Fiji . . . . .	7,740	121,180
Sierra Leone . . . . .	15,000	180,000			
The Gold Coast . . . . .	46,000	1,905,000			

## FRANCE.

FRANCE lies on the western side of Europe. It stretches across the continent, from the shores of the Atlantic to the waters of the Mediterranean. It approaches nearer to Britain than any country on the European mainland—the Strait of Dover, which divides the opposite shores of France and Britain, being only twenty-one miles across.

**BOUNDARIES.**—On the *north* by the English Channel and Belgium; on the *east* by Germany, Switzerland, and part of Italy; on the *south* by the Mediterranean Sea and Spain; on the *west* by the Bay of Biscay.

France is divided from *England* by the English Channel and the Strait of Dover, from *Belgium* and *Germany* by an artificial frontier-line, from *Switzerland* by the Jura, from *Italy* by the Western Alps, and from *Spain* by the Pyrenees.

**EXTENT.**—France is about three and a half times larger than England and Wales, its area amounting to 204,000 square miles.<sup>1</sup>

The *length*, along the meridian of 2° E., is about 600 miles.

The *breadth*, along the 48th parallel, is about 540 miles.

**COASTS.**—France has three lines of sea-coast. Two of them are continuous—the Channel and the Bay of Biscay; the third belongs to the Mediterranean. This country is therefore well situated for maritime commerce.

The coasts of France are, except in the north-west, regular and unbroken, especially that portion between the Gironde and the Adour bordering on the Landes. The total length of coast-line is 1,500 miles, of which 350 belong to the Mediterranean, 1,100 to the Bay of Biscay and the English Channel, and the rest to the North Sea.

1. **Capes.**—Griz Nez<sup>2</sup> and La Hague on the north-west; Ushant and Bec du Raz on the west.

2. **Inlets.**—The only considerable openings are the Bay of St. Malo, and the estuaries of the Seine, Loire, and Gironde, and the Gulf of Lions.<sup>3</sup>

3. **Islands.**—At the entrance of the English Channel, Ouessant (or Ushant); in the Bay of Biscay, Belle Isle,<sup>4</sup> Ré, Oléron, and a few others. In the Mediterranean, the group called Iles d'Hyères, near the coast, and the large island of Corsica, which forms one of the departments. Corsica is an Italian island, but has belonged to France since 1768; Ajaccio, the capital, is noted as being the birthplace of Napoleon I. The Channel Islands, off Normandy, belong to England (see page 42).

**MOUNTAINS.**—France is, in general, a level country; but it is mountainous on some parts of its border-line, and is hilly in portions of the interior, towards the centre and east. The principal mountain-ranges are:—

1. The Alps, which divide France (in the south-east) from Italy, and rise above the snow-line.<sup>5</sup> *Mont Pelvoux* (13,400 feet), one of the highest points of the Alps, is within the French border. *Mont Blanc*<sup>6</sup> (15,780)

1. After the Franco-German War of 1870-71, over 5,000 square miles of French territory were transferred to Germany.

2. Griz Nez, grey nose.

3. So called from its boisterousness, and not from the city of Lyons, as erroneously supposed.

4. Belle Isle, the beautiful isle.

5. That is, above the line at which, owing to the low temperature consequent on extreme height, the snow never melts. The height of the snow-line in the Alps is between 8,000 and 9,000 feet above the sea.

6. Mont Blanc, the white mountain.

feet), *Mont Viso*, and *Mont Genève* are on the frontier-line of France and Italy.

2. The **Jura Mountains** (5,600 feet)—less elevated than the Alps—extend along the border of France and Switzerland.

3. The **Pyrenees** form the border between France and Spain, and are snow-covered in their higher peaks and ridges, though not so high as the Alps. The *Pic du Midi* (9,540 feet), one of their loftiest points, is within the French border; *Maladetta* (11,400 feet), *Mont Perdu* (10,900 feet), and others, are on the frontier-line.

4. A long chain of hills, only moderately elevated, stretches through the east of France, in the direction of south-west and north-east. The hills are called the *Cevennes*<sup>1</sup> in their southern division, and the *Vosges* further to the northward.

(1.) The **Cevennes** (5,000 feet) bound on the west the valleys of the Rhone and the Saône.

(2.) The **Vosges** (4,000 feet) form the western limit of a portion of the Rhine valley.

5. To the westward of the Cevennes, and within the former province of Auvergne, is a group of hills which exhibit numerous extinct volcanoes,<sup>2</sup> marked by their conical summits and the remains of lava and ashes which have issued from them in former ages.

With the above exception, France has a level, or merely undulating, surface. In the south-west corner of the country, between the Lower Garonne and the base of the Pyrenees, there is a remarkable tract known as the *Landes*, which is a flat sandy waste—lined by sand-hills along the coast, and backed by pine-forests towards the interior. The shepherds of the Landes pursue their avocation upon stilts, in order to be above the reach of the sand-drifts.

**RIVERS.**—France has four considerable rivers, besides many of less size. The four great rivers are the *Seine*, the *Loire*, the *Garonne*, and the *Rhone*. The first three are entirely within France. The upper portions of the Moselle and the Meuse, belonging to the basin of the Rhine, are also within France. The upper part of the Rhone (above the Lake of Geneva) belongs to Switzerland.

1. The **Seine** has a course of 470 miles, and falls into the English Channel at Havre. It is navigable for 340 miles, to Troyes. Paris and Rouen are on its banks.

2. The **Loire** rises in the Cevennes and has a total course of 600 miles, but is with difficulty navigable for 450 miles above Nantes.

3. The **Garonne** rises in the Pyrenees, and after a course of 350 miles enters the Gironde. It is navigable to Toulouse, 270 miles from its mouth.

4. The **Rhone** rises in the Alps, and after passing through the Lake of Geneva flows south by Lyons, where it is joined by the *Saône*, into the Mediterranean. Total length, 530 miles. The current of the Rhone is extremely rapid, that of the Saône very sluggish.

Other less important streams are the *Somme*, *Vilaine*, *Charente*, and the *Adour*. The latter, like the Garonne, is subject to floods; it drains an area of 7,000 square miles.

**Lakes.**—Of the few lakes, the largest are the *Grand Lieu* (30 sq. m.), near the mouth of the Loire, and *Lake Bourget*, in eastern France.

1. Cevennes, Celtic *ca/n*, a back or ridge.

2. Of the extinct volcanoes of Auvergne the highest, *Mont Dore*, attains a height of 6,221 feet.

**CLIMATE.**—France is, on the whole, a warmer country than England, especially in the south. The air is generally drier than in our own country. In the north of France, however, the winters are often severe.

The mean annual temperature rises from 50° F. in the north, and 54° in the centre, to 60° in the south.

**NATURAL PRODUCTIONS.**—The productions of northern France resemble those of England, but its *forests* are much more extensive; and the bear, wolf, and other wild animals, long extinct in Britain, are still found in the less frequented and mountainous districts.

1. **Plants.**—In passing from the shores of the Channel to the Mediterranean, the character of the vegetation shows the gradual rise of temperature. The *vine* is abundantly grown in the east, centre, and south of France,<sup>1</sup> and the *olive*, the *mulberry*, and the *fig* flourish in the plains that adjoin the Mediterranean coast.

It is in the east of France, within the provinces of Champagne and Burgundy, that the wines bearing those names are produced. A district of the south-west, adjoining the river Garonne, furnishes the wines known as claret.

2. **Minerals.**—In mineral produce, France, though inferior to England, is yet rich. *Coal*<sup>2</sup> is much less abundant than is the case in Great Britain, but *iron*<sup>3</sup> is plentifully distributed, and several other metals occur. *Mineral springs* are numerous, especially in the neighbourhood of the Pyrenees.

**INHABITANTS.**—France has a population of 38 millions, equal to an average of 187 persons per square mile, or rather more than a *third* of the density in England.

In 1866, the population of France was 33,067,064, or 181 to the square mile; but in 1872, mainly owing to the cession of Alsace and Lorraine to Germany, the population numbered only 36,102,921, or 176 to the square mile. At the last census, in 1891, the total number was 38,095,000, or 187 to the square mile.

**Race.**—Ninety per cent. are *French*—a mixed race, descended from the native Celts and the Roman and Teutonic invaders. In the north-east the *Flemish* element predominates, while in the north-west the Bretons are almost purely *Celtic*. The *Basques* inhabit the south-west districts bordering on the Pyrenees.<sup>4</sup> In Corsica and Nice are about 300,000 Italians.

**Language.**—The *French* language is essentially Latin, and is largely used by the higher classes in every country on the continent. *Armoric*, a Celtic dialect, is spoken in Brittany, *Basque* in the south-west, and *Italian* in Corsica and Nice.

**INDUSTRIAL PURSUITS.**—About three-fifths of the people are directly engaged in *agriculture*,<sup>5</sup> but France is also a great *manufacturing* and *commercial* country, ranking only second to Britain in these respects.

1. In Normandy and Brittany apple orchards take the place of the vineyards of the warmer eastern and southern districts.

2. Coal produced in 1890 = 25,800,000 tons (one-seventh that of the United Kingdom).

3. Iron ore produced in 1889, 3,000,000 tons, or one-sixth that of the United Kingdom.

4. The Celtic-speaking people number 1,230,000, and the Basques 116,000.

5. Landed property in France is much more

subdivided than in England. The latest estimate gives the number of proprietors of estates of 600 acres and upwards at 50,000; those of 80 acres, 500,000; those under 6 acres at 5,000,000. It is estimated that 80 per cent. of the soil of France is arable, while the waste and uncultivated lands amount to 14 per cent.; the remaining 6 per cent. is covered with forests, vineyards, buildings, &c.

1. **Agriculture.**—The chief objects of culture are *wheat* and other grains in the northern and central parts of the country, the *vine* and the *olive* in the south. *Wines* and *brandy* are important articles of French produce. Beetroot is largely grown in the north of France, for the purpose of making *sugar* from it.

2. **Manufactures.**—The *silk* manufacture is the distinguishing feature of French manufacturing industry; but *woollen*, *linen*, and other textile fabrics are also made on a very extensive scale. The *silk* manufacture is chiefly pursued in the south, at Lyons, Nismes, Avignon, &c.; the *woollen* manufacture principally in the north, at Rouen, Amiens, and elsewhere. *Fine linens*, *lace*, and *cotton goods* are also chiefly made in the north of France.

The making of *gloves* is an important branch of French manufacturing industry. *Watches* and *clocks*, *ornamental china* and *glass*, *jewellery*, *perfumes*, *artificial flowers*, and various articles of finery, are also characteristic of French taste and skill.

3. **Commerce.**—The foreign commerce is very considerable, and extends to the most distant parts of the globe, but is chiefly carried on with Great Britain, Belgium, Germany, and Italy.<sup>1</sup> The ports of *Marseilles*, *Bordeaux*, and *Havre* are the chief seats of maritime trade. *Bordeaux*, especially, is distinguished as the emporium of the wine trade.

**Imports.**<sup>2</sup>—The principal articles of import are *raw cotton* and *silk*, *wool*, *timber*, *iron*, *coal*, and *colonial produce*.

**Exports.**—The great articles of export from France are *silks* and *ribbons*, *wine* and *brandy*, *gloves*, and the various other articles mentioned.

**Internal Communication.**—Good; by well-made *roads*, *navigable rivers*, *canals*, and an admirable system of *railways*.

There are about 5,500 miles of *navigable rivers*, 2,300 miles of *canals*, 20,000 miles of *railways*, and upwards of 60,000 miles of telegraphic lines.

**GOVERNMENT.**—France is a *democratic republic*, based upon *universal suffrage*.

The head of the executive power is the *President* of the Republic; the legislative power is vested in the *National Assembly*, which consists of two Chambers—the Chamber of Deputies and the Senate.

The *Annual Revenue* and *Expenditure* each amount to about 130 millions sterling, while the *Public Debt*, "the heaviest ever incurred by any nation in the world," amounts to 36,000 millions of francs, or 1,440 millions sterling, equal to £38 per head of the population.

**Army and Navy.**—The standing *army* consists of about 600,000 men, maintained at an annual cost of over £27,000,000. The effective *war-navy* consists of nearly 400 vessels, 60 of which are ironclads. In number of vessels and actual strength the French navy is not much inferior to that of England, but the latter is being strengthened, and in 1894 will consist of over 500 efficient vessels.

1. Exports from France to the United Kingdom and British Colonies in 1890, £45,756,000; imports of British and Irish produce into France in the same year, £28,532,000.

2. In 1888-9 the value of the *General Commerce* was, imports, £167,000,000; exports, £144,000,000. Of the 15,000 mercantile vessels belonging to France in 1891, 12,750 are under 50 tons. 270

sailing vessels and 243 steamers were engaged in the European seas, and 392 sailing vessels and 189 steamers in ocean navigation. Total tonnage entered in 1890, 20,000,000; cleared 20,691,000.

3. The cost of the war and foreign occupation of 1870-73, amounted to the enormous sum of £371,515,250.

**Education.**—Public education in France is in a much more advanced state than in most European countries, and is directly under the control of the government.

**Religion.**—The great majority of the French nation are nominally followers of the Church of Rome, but full toleration is allowed to the members of the various Protestant churches. The ministers of religion are supported by the State out of the public funds.

**DIVISIONS and TOWNS.**—France is divided into 86 *Departments* and 1 Territory (the remnant of the Haut Rhin Department), the larger number of them named after the rivers which flow through them—as the departments of the Seine, Marne, Meuse, Meurthe, Loire, Charente, &c. Some derive their names from the mountains which they adjoin, as the departments of the Upper and Lower Alps, the Upper and Lower Pyrenees, and the Vosges. The island of Corsica forms one of the departments.

Previous to the great revolution, in the closing years of the last century, France was divided into thirty-four provinces. The names of many of these provinces are continually referred to in the pages of history. Among them are Picardy, Normandy, Brittany, Guienne, Gascony, Navarre, Languedoc, Provence, Dauphiny, Auvergne, Burgundy, Champagne, Lorraine, Alsace, Isle of France, Anjou, and Maine. Their relative positions can only be properly learned from the map.

**PARIS**, the capital of France, stands on either bank of the river Seine, and partly upon an island in the river. It has nearly 2½ million inhabitants—a greater population than belongs to any other city of Europe, except London. Paris is rich in fine public buildings and works of art, and ranks as the centre of fashion and refinement. **Versailles**, famous for its magnificent royal palace and gardens, is a few miles to the south-west of Paris.

**Rouen** (112), an ancient city, the former capital of Normandy, on the Lower Seine, is a great seat of the cotton manufacture. **Havre** (116), at the mouth of the river, is the chief emporium of foreign trade on the French side of the channel, and constitutes the chief outport of Paris. Among the other places of note within the valley of the Seine and its tributaries are **Troyes**, the ancient capital of Champagne (on the Upper Seine), and **Reims** (104), formerly the ecclesiastical metropolis of France, and in the cathedral of which its monarchs were crowned. Reims is in the plain between the Marne and the Aisne, two of the tributaries of the Seine.

To the northward of the Seine valley are the following:—

**Amiens** (80), the former capital of Picardy, an ancient city on the river Somme, which enters the Channel. Below Amiens, on the same river, is **Abbeville**. At the mouth of the Somme is **St. Valery**, the port whence William of Normandy finally sailed for the shores of England in 1066. **Dieppe**, a flourishing seaport, is to the westward of the Somme. To the north of the Somme is the small town of **Crecy**, and, still further north, the village of **Agincourt**—names which recall the triumphs of the English arms in 1346 and 1415. **Boulogne** and **Calais** are seaports on the French side of the narrow strait which separates the adjacent shores of France and England. **Dunkirk**, a place formerly of great name in history, is to



the east of Calais. Lille (201), Roubaix (115), Valenciennes, and Arras are inland towns, the three former near the Belgian frontier.

The following towns are situated within the basin of the river Loire :—

Orleans (57), an ancient city in the heart of the country, on the north bank of the Loire; Tours (59), also on the Loire, lower down, distinguished as the seat of the silk manufacture; Nantes (123), a flourishing port on the Loire, 40 miles above its outpost St. Nazaire, at the mouth of the river; Poitiers, on a small tributary of the Vienne (which joins the Loire), noted in history for the victory gained by the Black Prince in 1356; St. Etienne (133), to the east of the Upper Loire, the chief seat of the ironworks of France.

Within the tract of country lying between the Lower Seine and Loire—bordering partly on the English Channel and partly on the Bay of Biscay—are the following places :—

Rennes (66), the ancient capital of Brittany, on the river Vilaine, which enters the Bay of Biscay; Caen (on the river Orne, which flows into the Channel), the favourite residence and the burial-place of William the Conqueror; Cherbourg, a strongly fortified seaport and naval arsenal, on the coast of the Channel, nearly opposite to the Isle of Wight; St. Malo, a port on the coast of Brittany; and Brest (70), an important naval station, at the western extremity of Brittany, upon a fine harbour formed by an inlet of the Atlantic.

The following are within the valley of the Garonne :—

Toulouse (150), the former capital of Languedoc, an inland city of the Upper Garonne; Bordeaux (252), the great port of the wine trade, near the mouth of the river, at the head of the estuary called the Gironde. Bordeaux was long in possession of the English,<sup>1</sup> and was the birthplace of our King Richard II.

In the tract of country lying between the mouths of the Garonne and the Loire are :—

La Rochelle, a seaport on the Bay of Biscay, famous in history for the prolonged siege in 1627-28, when it formed the stronghold of the French Protestants; Rochefort, a naval station, near the mouth of the river Charente; Cognac, also on the Charente, higher up the river, the centre of one of the principal brandy-producing districts.

To the south of the Garonne, towards the foot of the Pyrenees, is the valley of the river Adour.

Bayonne, at the mouth of the Adour, is a commercial port. *Bayonets* were first made in this town. Pau, an inland town on a tributary of the same river, was the birthplace of Henry IV. of France.

The following towns are within the basin of the Rhone :—

Dijon (60), the former capital of Burgundy, to the west of the Saône; Besançon (56), an ancient and strongly-fortified city (the former capital

1. From 1154 to 1450—a period of nearly three centuries.

of Franche-Comté), on the river Doubs, toward the Swiss border; Lyons (416), at the junction of the Saône and the Rhone, the great seat of the silk manufacture and the second city of France in point of population; Avignon, important in ecclesiastical history, situated on the left bank of the Rhone, within its lower course; and Nîmes (70), in the plain west of the river, a seat of the silk manufacture.

To the south-west of the Rhone valley, along the shore of the Gulf of Lions, are:—

Montpellier (56), Cette, and Narbonne. Cette, which is on the coast, is an important commercial town, the eastern outlet of the great Canal du Midi (or Canal of Languedoc), which connects the river Garonne with the Mediterranean.

On the coast, to the eastward of the Rhone, are:—

Marseilles (404), the chief seat of French commerce in the Mediterranean, and a place of early historic fame, having been founded in the 6th century before the Christian era; Toulon (70), further to the east, a great naval station and arsenal; and Nice (77), a popular winter resort on the Mediterranean coast, near the Italian border.

In the north-east of France, within the valleys of the Moselle and the Meuse (Rhine basin), are the following:—

Nancy (79), the former capital of Lorraine, on the river Meurthe, an affluent of the Moselle; and Verdun, a fortified town on the Meuse.

The island of **CORSICA** contains the small towns of Ajaccio and Bastia, the former celebrated as the birthplace of Napoleon Bonaparte.

The **CHANNEL ISLANDS**, which lie off the north-western coast of France, belong to Great Britain, and have been attached to the English Crown ever since the date of the Norman Conquest.

**COLONIES.**—The foreign possessions of France, including Protectorates and Spheres of Influence, have a total area of over 2½ million square miles, and a population of about 30 millions.

The Colonial Empire of France is thus about one-fourth that of Great Britain in extent, but the desert region between Algeria and the Senegal and the Niger alone has an area of 1½ million square miles, while of the total population (one-tenth of that of the British Colonial Empire) not half a million are French.

The principal *French Colonies* are Algeria, in Africa; Cochin China and Tonquin, in Asia; Cayenne, in South America; Martinique and Guadeloupe in the West Indies; and New Caledonia, in Oceania.

The chief *French Protectorates* are Tunis and Madagascar, in Africa; and Annam and Cambodia, in Asia.

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1. Algeria is not regarded as a colony, but as an integral part of France. The other colonies are also considered to form, politically, a part of France, and both Algeria and the Colonies are represented in the French Senate and Chamber of Deputies.

## EXAMINATION QUESTIONS.

1. Name, and point out on the map, the boundaries of France.
2. What proportion does the size of France bear to that of England and Wales?
3. What lines of sea-coast does France possess?
4. What mountains form part of the frontier-line of France?
5. Is France generally a level or a hilly country?
6. In what part of France is the district called the *Landes*? What are its features?
7. Name the four great rivers of France, with the seas into which they flow.
8. What kind of climate has France compared with that of England?
9. What productions of the vegetable kingdom characterise the south of France?
10. In what parts of France is the vine most extensively grown?
11. Give a few particulars as to the number, race, and language of the French people.
12. What branch of manufacture is most characteristic of French industry?
13. In what parts of France are the silk, woollen, linen, and cotton manufactures chiefly pursued? What other articles are manufactured?
14. What articles are chiefly imported and exported from France?
15. Name the three great ports for the foreign commerce of France, and point them out on the map.
16. Under what form of government is France, and what is the prevailing religion?
17. Into how many departments is France divided, and from what are their names in many cases derived?
18. Name some of the most important among the former provinces of France.
19. On what rivers are the following places situated:—Paris, Rouen, Troyes, Amiens, Orleans, and Nantes?
20. Name the principal seaports on the French shores of the Channel.
21. In what parts of France are Crecy, Agincourt, and Poitiers, and for what are they noted?
22. Where is Lyons, and of what branch of industry is it the seat?
23. Where are Reims, La Rochelle, Rochefort, Montpellier, Dijon, and St. Etienne?
24. On what river is Bordeaux, and for what is it distinguished?
25. On what rivers are Toulouse, Bayonne, Avignon, Besançon, Nancy, and Verdun?
26. Where are Cherbourg, Brest, and Toulon, the three great naval arsenals of France?
27. Where is Marseilles, and for what is it noteworthy?
28. What towns does the island of Corsica contain?
29. Enumerate the principal foreign possessions of France.

## BELGIUM.

BELGIUM<sup>1</sup> is a small country in the west of Europe, and from 1814 to 1830 was politically united to Holland. It is bounded on the north by Holland; on the east by Germany and the Grand Duchy of Luxemburg; on the south by France; and on the west by the North Sea.

**EXTENT.**—Its area is 11,373 square miles, which is about one-fifth the size of England and Wales.

Its *greatest extent*, from east to west, is about 160 miles, and from north to south about 115 miles. Its *sea-coast* is only 42 miles in length, and is nowhere broken by capes or inlets. Like that of Holland, it is uniformly flat, but is skirted with natural sand-hills or *dunes*, which protect the land from being inundated by the sea.

**SURFACE.**—The greater part of Belgium is level; but in its eastern division the ground becomes hilly, and includes the wooded region of the Ardennes.

Belgium is, *physically*, a continuation of Holland. The Ardennes have an average elevation of about 1,000 feet, but a few points near Spa exceed 2,000 feet.

**RIVERS.**—The *Meuse* (or *Maas*) and the *Scheldt* (or *Escaut*) are the two chief rivers of Belgium, but both of them pass thence into Holland, and have their lower courses in that country.

1. Belgium, the country of the *Belga*, the old inhabitants of the country, who were originally settled along the banks of the Volga or *Balga*, hence their name.

These rivers have numerous tributaries, as the *Rupel* and the *Lys*, which join the *Scheldt*, and the *Ourthe* and the *Sambre*, which unite their waters to the *Meuse*.

The "winding *Meuse*" has a total course of 550 miles, only 115 of which are in Belgium. The total length of the *Scheldt* is about 250 miles, about one-half of which is in France. Both are deep and navigable for large vessels.

**CLIMATE.**—The climate resembles, in most respects, that of England. It is moist in the western, but drier in the eastern, provinces.

The mean annual temperature is about 50° F., and the annual rainfall 28 inches.

**PRODUCTIONS.**—Belgium is rich in *minerals*, and possesses extensive coalfields<sup>1</sup> and abundant deposits of iron ore, which are very largely worked.

In the production of coal and pig iron, Belgium, notwithstanding its small area, ranks fifth among the countries of the world, the quantities produced being exceeded only by the United Kingdom, the United States, Germany, and France.

**INHABITANTS.**—Comparatively to its size, Belgium is the most populous country in Europe—probably the most populous in the world.<sup>2</sup>

It had, in 1890, above 6,000,000 inhabitants—equal to an average of 535 persons to the square mile. The people of Belgium are properly Flemings, and the native dialect of the lower orders is the *Flemish* tongue; but the *French* language is uniformly spoken by the upper classes of society.

**INDUSTRIAL.**—The Belgian population are highly distinguished for their industry.

1. **Agriculture.**—Although the soil consists mainly of clay and sand, nearly every part of the country is well cultivated. *Corn, flax, hemp, madder, tobacco, beetroot, and clover* are grown.

2. **Manufactures.**—The manufacture of *woollen, linen, lace, cotton, and silk* goods is largely carried on. The fine lace of Belgium (produced at Brussels, Mechlin, Antwerp, and elsewhere) is unrivalled in quality. *Ironworks* are numerous in the eastern part of the kingdom, towards the banks of the *Meuse*.

3. **Commerce.**—Colonial produce and wool are the chief *imports*; and coal, flax, iron, manufactured goods, and agricultural produce, the principal *exports*.<sup>3</sup> The principal ports are Antwerp, Ostend, and Ghent.

4. **Internal Communication.**—Excellent macadamised *roads*, numerous *canals*, and an extensive and complete system of *railways* and *telegraphs*, radiating from Mechlin (Malines).

1. The two principal coalfields are those of *Hainaut* and *Liège*. The coalfields of Belgium annually produce about 20 million tons.

2. In Brabant, the density in 1857 was 847 per square mile. In England, the average density in 1851 was 540.

3. The value of the general trade in 1889 was —Exports, £35,341,040; Imports, £63,255,120. The value of the direct trade with Great Britain was, in 1890, Exports, £17,333,776; Imports, £13,594,960.

**GOVERNMENT.**—Belgium is a constitutional monarchy, under a king.<sup>1</sup>

The Public Revenue amounts to over 16½ millions sterling, and the Expenditure to 16 millions sterling, while the National Debt is nearly 100 millions, most of it incurred in the construction of railways and other public works.

The standing army numbers about 50,000 men, besides which there are about 35,000 National Guards, and the Reserves, which bring up the total war strength to 150,000 men. Many of the towns of Belgium are very strongly fortified. Antwerp is the chief fortress and military arsenal. Belgium has no navy.

**Education.**—Rather backward. The primary schools are supported partly by the State and partly by the provinces and communes. There are four universities: Brussels, Ghent, Liège, and Louvain.

**Religion.**—Nearly all the Belgians belong to the Roman Catholic Church. There are only about 10,000 Protestants, while the Jews number about 4,000.

**DIVISIONS and TOWNS.**—Belgium is divided into nine provinces, the names of which, with their chief towns, are as follows:—

Provinces.	Towns.	Provinces.	Towns.
West Flanders.	Bruges, Ostend.	Limburg . . .	Hasselt, St. Trond.
East Flanders .	Ghent, St. Nicolas.	Liège . . . .	Liège, Verviers.
Hainault . . .	Tournai, Mons.	Namur . . . .	Namur, Dinant.
South Brabant.	Brussels, Louvain.	Luxemburg .	Arlon, Marche.
Antwerp . . .	Antwerp, Mechlin.		

**BRUSSELS** (477) is the capital of Belgium. It stands on the river Senne, in the centre of the kingdom, and is a well-built and attractive city. Among many interesting places in its neighbourhood, the most noteworthy is the battlefield of *Waterloo*, ten miles to the southward.

Belgium formed part of the region known in former ages as the Low Countries, and was the frequent theatre of war. The destinies of rival nations have often been decided on its plains. The sites of numerous *battlefields* are hence found within its limits—among them, Steinkirk (1692), Landen (1693), Ramillies (1706), Oudenarde (1708), Fontenoy (1745), Jemappes (1792), and Quatre-bras, Ligny, and Waterloo (1815).

**Antwerp** or **Anvers** (220), on the river Scheldt, is the principal port of Belgium, and the chief emporium of its foreign trade. **Mechlin** or **Malines** (50), situated nearly midway between Brussels and Antwerp, is noted for its lace manufactures, and is the centre of the Belgian railway system. **Ghent** (152), an ancient city on the Scheldt, is the principal seat of the cotton manufacture. **Bruges** (47), further to the westward, has both manufactures and trade. But all of these cities were more populous at a former period—during the 13th and 14th centuries—than they are at the present day. **Ostend** (24), on the coast of the North Sea, is a port of some note.

1. Prior to the revolution of 1830, it was attached to the neighbouring kingdom of the Netherlands. But the Belgian population then asserted their independence, and Belgium was formed into a distinct kingdom.

**Mons (26)**, the chief town of Hainault, and **Namur (29)**, at the junction of the rivers Sambre and Meuse, are within the coal district of Belgium. **Liège (146)**, in the eastern part of the kingdom, is a flourishing manufacturing city, situated on the Meuse, in the midst of coalfields and ironworks.

## HOLLAND, OR THE NETHERLANDS.

**BOUNDARIES.**—**HOLLAND**,<sup>1</sup> a small country of western Europe, borders on the North Sea, which forms its boundary on the *west* and *north*. On the *east* it is bounded by Germany, and on the *south* by Belgium.

**EXTENT.**—The *area* of Holland is 12,648 square miles, which is somewhat less than one-fourth the size of England and Wales. Its *greatest length* is 196 miles; its *greatest breadth*, 109 miles.

**COASTS.**—Holland has an extensive and varied line of sea-coast. It is low everywhere, being in some places actually below the sea-level, but is generally skirted by natural sand-hills<sup>2</sup> or enormous *dykes* constructed and maintained by the State, which alone prevent the sea from inundating the land.

The principal *inlets* are the Zuyder Zee, the Dollart Zee, and the estuaries of the Scheldt, the Maas, and the Rhine.

The Zuyder Zee was formed by an irruption of the sea in 1282. Before that year the centre of its bed was occupied by a small lake<sup>3</sup> which was drained into the North Sea by a river 50 miles long. The Dollart Zee was formed by two inundations of the sea, in 1277 and 1287. Among later irruptions may be noticed that of 1421, when the waters of the Rhine burst through a dyke and overwhelmed a large and populous district. Reclus says that "on retiring, the tide left, instead of fields and houses, only an archipelago of marshy islands." This district is now known as the *Bies Bosch*.<sup>4</sup> In 1825, another fearful irruption in *Waterland* destroyed forty villages with their inhabitants.

**ISLANDS.**—Two principal groups: one in the north-west (Texel, Vlieland, Terschelling, &c.), and another in the south-west (Walcheren, North and South Beveland, &c.).

A glance at the map of Holland will show that the north-western group of islands is evidently the remains of the old coast-line, the surrounding land having been submerged by successive inundations, chiefly that of 1282, when the Zuyder Zee was formed. Walcheren and the other south-western islands were most probably insulated by the overflowing of the Rhine, Maas, and Scheldt. These islands are in many places below sea-level, and are only preserved from inundation by artificial embankments.

**SURFACE.**—Holland is a flat country, and large parts of it are naturally marshy. Along the coasts the land is in some places even lower than the waters of the adjoining sea, and it is only by means

1. Holland, from *oïlant*, marshy ground, originally the name of the principal province. Netherlands, nether or lower countries, in allusion to its depressed surface. Also called the *Low Countries*. From 1814 to 1830 Belgium was politically united to Holland.

2. Called *dunes*.

3. Known to the Romans as *Lacus Flevo*.

4. *Bies*, rush; *bosch*, a forest, i.e. a forest of rushes or reeds. In this catastrophe 72 villages were destroyed and 100,000 people perished.

of mounds (or *dykes*, as they are called) that it is preserved from inundation. A large portion of the country, indeed, has been actually gained from the sea by the persevering industry of the Dutch people. Many of the shallow lakes or *meers* have been drained of their waters and converted into rich pasture-grounds.

The expense of constructing and maintaining the *dykes* is enormous—the whole of the wood and granite required being imported from other countries. These dykes are vast embankments of earth, 30 feet high and from 70 to 300 feet broad, strengthened by massive timber work and masonry, and occasionally the submerged piles are protected by iron plates.<sup>1</sup>

**RIVERS.**—Holland abounds in inland waters. The *Rhine*, the *Maas*, and the *Scheldt* are the principal rivers; and the two former of these are connected, towards their mouths, by numerous channels, both natural and artificial.

There are many smaller streams—The *Yssel*, *Vecht*, *Amstel*, and others; and the towns are traversed by numerous canals, so that the whole country exhibits a network of water-courses. It is, however, only the lower portions of the three great rivers named above that are within the Netherlands—their middle and upper courses belong to other countries.

The Rhine, Meuse or Maas, and Scheldt enter the North Sea; the Yssel, Vecht, and Amstel fall into the Zuyder Zee, *i. e.*, South Sea. The *delta* of the Rhine has an area of 4,000 square miles, or one-third that of Holland.

**LAKES.**—There are numerous lakes in Friesland and North and South Holland. Portions of the larger and many of the smaller meres or shallow lakes have been reclaimed, and now form rich and fertile “polders.”

**CLIMATE.**—Holland is rather colder than England, and the winters are of much greater severity. The air is generally moist, especially in the neighbourhood of the coast.

The Zuyder Zee is occasionally, and the North Holland and other canals are always, frozen over in winter.

**PRODUCTIONS.**—There are no metals and but few *minerals*. Both building-stone and timber are scarce; the former is imported from Norway, and the latter from Norway and Germany. The *animals* are similar to those of England. Water-fowl, swans, and storks<sup>2</sup> are very numerous.

**INHABITANTS.**—Holland has about 4½ million inhabitants, an average of 360 persons per square mile. In Belgium the density is 535.

The *Dutch* belong to the Teutonic or German race; but there are nearly 70,000 *Germans*, *Flemings*, *Frisians*, and *Jews*. The common language is *Dutch*. The *Frisian* language is spoken in Friesland.

**INDUSTRIES.**—The Dutch (as the people of Holland are called) are distinguished for their industry, frugality and cleanliness, and also by their devotion to maritime pursuits. They are among the best farmers and the most successful traders in the world.

1. On the coat of arms of one of the provinces is the figure of a lion swimming, underneath which is the motto, “I strive, and keep my head above water.”

2. The stork is particularly venerated and carefully protected by the Dutch. Frogs and other reptiles, which form its principal food, abound in the *meers* and marshes.

1. **Agriculture.**—In Holland, a great part of the land is devoted to grazing. Vast numbers of cattle are reared, and the produce of the farm and dairy—cheese, butter, &c.—is of the finest description.

2. **Fisheries.**—Extensive fisheries, in the North Sea and elsewhere, were formerly carried on by the Dutch; but these, though still considerable, are less important now than they once were.

3. **Manufactures.**—The principal are shipbuilding, woollen cloths, sugar-refining, and gin-distilling.

4. **Commerce.**—The possession of the mouths of several great rivers enables the people of Holland to command a large share in the transit of commodities to and from the countries of Central Europe.

The Dutch have for centuries past been the masters of a great carrying trade. In the 16th and 17th centuries, they were, in this respect, the carriers of the world. Though now less in amount than at a former time, the shipping and commerce of the Dutch nation are still very large.

The exports (annual value, 80 millions sterling) consist principally of *butter, cheese, cattle, sheep, colonial produce*, and the imports (annual value, 90 millions sterling) are *manufactured goods, colonial produce, timber, &c.* The principal articles of export to the United Kingdom are *butter, butterine, live animals, and cheese*. The total imports from the United Kingdom, in 1889, amounted in value to 18 millions sterling, and the exports to 29 millions. The mercantile navy of Holland consists of over 500 sailing vessels and 100 steamers, employing about 15,000 men. The principal ports are **Amsterdam, Rotterdam, Helder, Middelburg, and Flushing.**

The internal trade of Holland is carried on almost entirely by the *canals and rivers*, which traverse the country in all directions, forming a close network of navigable water-courses. There are good *roads* along the tops of the dykes, with nearly 1,700 miles of *railway*, and 3,200 miles of *telegraph lines*.

Of the canals of Holland, the most noted are the **North Holland Canal** (50 miles long, 125 feet broad, and 21 feet deep), from the Helder to the Y; and the deeper **North Sea Canal**, 14½ miles long, from Amsterdam to the North Sea. The latter admits vessels drawing 23 feet.

**GOVERNMENT.**—The kingdom of the Netherlands is a *hereditary monarchy*, under constitutional forms.

The *executive* power is vested in the Sovereign and a Council of Ministers. The *legislative* power is vested in the **States-General**, as the two Houses of Parliament are called. The **Revenue** is over 10 millions sterling, and the **Expenditure** over 11 millions. The **National Debt** amounts to 90 millions.

The **Army** consists of about 65,000 men, besides the *colonial army* of 30,000, and about 118,000 men enrolled in the *militia*. The **Navy** is considerable, and consists of 150 steam-vessels, of which 24 are ironclads.

**Education.**—Education is in an advanced condition, one in eight of the entire population being in attendance at the elementary schools established and partly supported by the State. Higher education is given in the middle and Latin schools and the Universities of Leyden, Groningen, Amsterdam, and Utrecht.<sup>1</sup>

**Religion.**—The *Protestant* religion is followed by the royal family and about two-thirds of the inhabitants, the rest are chiefly *Roman Catholics* and *Jews*.

1. At Delft is a most valuable school for instruction in hydrographic engineering, such as the making and repairing of dykes, canals, &c., a subject of vital importance in such a country as Holland.



**PROVINCES and TOWNS.**—The kingdom of the Netherlands includes eleven provinces. Their names, with the chief towns in each, are :—

Provinces.	Towns.	Provinces.	Towns.
North Holland	Amsterdam, Haarlem, Hoorn, Alkmaar.	Guelderland.	Nimeguen, Zutphen.
South Holland	Rotterdam, The Hague, Leyden, Delft.	Overysssel . .	Zwolle.
Zeeland . . .	Middelburg, Flushing.	Drenthe . . .	Meppel, Assen.
North Brabant	Hertogensbosch, Breda.	Friesland . .	Leeuwarden.
Utrecht . . .	Utrecht, Amersfoort.	Groningen . .	Groningen.
		Limburg . .	Maastricht, Roermonde.

**AMSTERDAM**<sup>1</sup> (406), is the largest city of the Netherlands, and the great seat of its foreign trade. It stands at the junction of the river Amstel and the Y (an inlet of the Zuyder Zee), which forms a safe and extensive harbour.

**Haarlem** (52), is to the west, Leyden and the Hague to the south-west, of Amsterdam. **Leyden** (45) has a university of great repute, and is celebrated in history for the sieges it underwent in the latter part of the 16th century (1573-74). **The Hague** (166), is a large and well-built city, the seat of government and the political capital of the kingdom. **Rotterdam** (203), on the river Maas (the channel of which forms the principal entrance to the Rhine), is the second city of the Netherlands in size and population. **Utrecht** (85), **Nimeguen**, **Breda**, **Hertogensbosch**, and many other of the cities of Holland, are important seats of trade. The Dutch towns in general have many features in common. They are clean and well-built, with canals running through the principal streets, bordered by rows of trees on either hand. Canals serve in Holland many of the purposes of roads in other countries.

**COLONIES.**—The Colonial Empire of Holland is extensive and important. The Dutch East and West Indies have a total area of 766,000 square miles, or 60 times that of Holland itself, and a population of nearly 30 millions, or nearly 7 times that of the mother-country.

The chief foreign possessions of Holland are in the *East Indies*, where the Dutch are masters of **Java**, with parts of **Sumatra** and **Borneo**, and of **Western New Guinea**, besides **Celebes**, and many of the smaller islands of that region. In the **New World**, part of **Guiana**, on the South American mainland, and some of the smaller islands of the West Indies, belong to the Dutch. Of the latter, the principal is **Curaçao**, near the coast of Venezuela.

#### QUESTIONS ON BELGIUM AND HOLLAND.

1. How is Belgium bounded?
2. What kind of country is Belgium as to its surface?
3. Name the chief rivers of Belgium. Into what sea do they flow?
4. In what kind of mineral produce is Belgium rich?

5. What are the people of Belgium properly called? What language is generally spoken?
6. What articles of industrial produce does Belgium supply?
7. Into how many provinces is Belgium divided? Name them.

1. The termination *dam* means an "embankment;" Amsterdam = the dam of the Amstel.

8. Point on the map to the capital of Belgium. On what river does it stand?  
 9. Name the chief seaport of Belgium. On what river does it stand?  
 10. For what are Mechlin, Ghent, Bruges, and Liège respectively noted?  
 11. What battlefields are included within the limits of Belgium?  
 12. How is Holland, or the kingdom of the Netherlands, bounded?  
 13. What arms of the sea occur on the coast of Holland? Point them out on the map.  
 14. What kind of country is Holland as to its surface?  
 15. Name the three principal rivers of Holland. Into what sea do they flow?  
 16. What kind of climate has Holland?  
 17. By what qualities are the Dutch people distinguished?  
 18. Of what do the productions of Dutch industry chiefly consist, and what kind of trade do the Dutch carry on?  
 19. Under what kind of government are Belgium and Holland respectively? What is the prevailing religion in each?  
 20. Name the provinces into which Holland is divided.  
 21. How is Amsterdam situated, and for what is it distinguished?  
 22. Name some of the other principal towns of Holland. Which is the seat of government?  
 23. By what characteristics (as to appearance) are the towns of Holland generally distinguished?  
 24. Name the principal foreign possessions of the Netherlands.

## SWITZERLAND.

**BOUNDARIES.**—SWITZERLAND<sup>1</sup> is an entirely inland country, and is bounded on the *north* by Germany, on the *east* by Austria, on the *south* by Italy, and on the *west* by France.

The course of the river Rhine marks the chief part of the frontier on the side of Germany; the highest portion of the Alpine system divides Switzerland from Italy, and the chain of the Jura forms part of the boundary on the side of France.

**EXTENT.**—Its greatest *length* from east to west is 208 miles, and its extreme *breadth* from north to south 156 miles. Its *area* is nearly 16,000 square miles, or considerably less than a third part of the size of England and Wales.

**MOUNTAINS.**—Switzerland is a mountainous country. Two-thirds of its surface consist of high mountains and intervening valleys, the other third is an elevated plain. The mountain land embraces the southern and eastern divisions of the country, the northern and western portions belong to the plain or valley, which stretches across the country in the direction of north-east and south-west, between the Lakes of Constance and Geneva. *Mont Blanc*, the highest summit of the Alps, is on the border-line of Piedmont and Savoy, and beyond the limits of Switzerland. But many of the principal Alpine summits are either within Switzerland or on its borders, and the most extensive of the *glaciers* are within its limits.

The Alps of Switzerland consist of several more or less continuous chains radiating from Mont St. Gothard, and are distinguished as the *Pennine* and *Lepontine Alps* on the frontier between Switzerland and Italy.<sup>2</sup> The Rhone flows between these mountains on the south and the *Bernese Alps* on the north. The range east of Mont Bernardin is known as the *Rhodian Alps*. Besides these principal ranges, there are other lofty groups, such as the *Vierwaldstüter Alps*, between the rivers Aar and Reuss, and the *Swiss Alps*, chiefly in the cantons of Glarus and Schwyz.

1. Fr. *La Suisse*; Ger. *Schweiz*, from the forest canton of *Schappis*, the chief town of which was probably founded, at a very early period, by a Swedish colony.

2. The portions of the Pennine and Lepontine Alps, which form the southern and eastern boundaries of the canton of the Valais, are frequently called the *Valais Alps*.

1. The **Pennine Alps** contain Mont Rosa, 15,217 feet; Mont Cervin or *Matterhorn*, 14,705 feet; and the *passes* of Great St. Bernard, 8,120 feet, leading from Martigny to Aosta; and *Matter-joch*, 11,014 feet, east of the *Matterhorn*.
2. The **Lepontine Alps** contain Mont Leone, 11,696 feet; Mont St. Gothard,<sup>1</sup> and the *passes* of the Simplon, 6,595 feet, traversed by Napoleon's splendid military road, constructed 1802-6; and the St. Gothard, 6,936 feet, between Altorf and Bellinzona.
3. The **Rhetian Alps** contain Piz Roseg, 12,936 feet; Ortler Spitz, 12,814; and the *passes* of the Splügen, 6,946 feet, between Chiavenna and Chur; and Stelvio, 9,172 feet, between the valleys of the Adige and the Adda.
4. The **Bernese Alps** contain the Aletschorn, 13,773 feet; Finster-aarhorn, 14,026 feet; the Jungfrau, 13,671 feet; and the *passes* of the Gemmi, 7,552 feet; the Grimsel, 7,103 feet; and the Furka, 7,990 feet.

**RIVERS.**—The *Rhine* and the *Rhone* are the two most important of the Swiss rivers, and, with their numerous tributary streams, water by far the greater part of the country. The *Aar* is a considerable affluent of the Rhine, and is joined by the Reuss, the Limmat, and other streams. The *Inn*, which waters the easternmost part of Switzerland, is a tributary of the Danube. The *Tessin* (or *Ticino*), which waters the only one of the Swiss cantons that lies south of the Alps, is an affluent of the Po.

1. The **Rhine** is formed by the junction of the *Vorder Rhine*, which rises in Mont St. Gothard, and the *Hinter Rhine*, which rises in the Adula group, and runs north to Lake Constance, whence it flows west to Basle. The celebrated "Falls of the Rhine" are below Schaffhausen. Halfway between these falls and Basle it is joined by the *Aar*, the principal river of Switzerland.

2. The **Rhone** rises in the Rhone Glacier, on Mont St. Gothard, and runs west through a valley flanked by the Bernese Alps on the north and the Pennine Alps on the south. Near Martigny it turns north-west and enters Lake Geneva, whence it flows south to the Gulf of Lyons. The rapidity of its current is due to the elevation of its source, which lies about 4,000 feet above the surface of Lake Geneva.

**Waterfalls.**—Numerous waterfalls occur in Switzerland, and are among the most attractive features of its scenery. The highest of them is the *Staubbach*, formed by a mountain-torrent (an affluent of the Lake of Brienz, in the southern part of the canton of Berne) which falls 800 feet. The *Falls of the Rhine*, below Schaffhausen, are much admired.

**LAKES.**—Switzerland abounds in lakes. The principal are *Geneva* (230 square miles), drained by the Rhone, *Constance* (183 square miles), *Neufchatel* (93 square miles), *Lucerne* (40 square miles), *Zurich*, *Thun*, *Brienz*, and *Wallenstadt*—all lying to the north of the Alps and drained by the Rhine and its tributaries; *Maggiore* and *Lugano*, to the south of the mountains, drained by the *Ticino*, a tributary of the Po.

**CLIMATE.**—The elevation of the country renders the climate of Switzerland cold on the whole, though in particular localities (and especially in the narrow mountain-valleys) considerable heat is experienced.

1. The completion of the great *St. Gothard Tunnel* and connecting lines placed the railway system of Switzerland in unbroken communication with those of Italy on the south and Germany on the north. This magnificent work,

commenced in 1872, cost £3,520,000, and was opened in 1882. The tunnel is 9½ miles long (about 1½ miles longer than the *Mont Cenis Tunnel*), and extends from Goscheneral on the north to Alrolo on the south.

The shores of the Lake of Geneva are specially distinguished for their warm and equable temperature. In all the higher regions, however, the winters are long and severe. In some of the deep and narrow valleys many of the inhabitants are afflicted with "cretinism" and "goitre."

**PRODUCTIONS.**—1. All the ordinary *domestic animals* of Europe are found. The *wild animals* include the bear, wolf, lynx, and chamois; and of the *birds* the most noted are the eagle, and the lammergeier or bearded vulture.

2. The produce of the soil is varied. The *wine* flourishes in the lower valleys and plains to a height of about 1,700 feet above the sea-level. *Wheat* and other grains are also grown. But Switzerland is rather a pastoral than an agricultural country. *Timber* is abundant upon the mountain-sides.

3. *Coal, iron, copper, lead, and rock-salt*, are found, but not much worked. There are numerous *mineral springs*, especially in the canton of Berne.

**INHABITANTS.**—Switzerland has over 3 million inhabitants, which is a large population for so mountainous a country, being on an average 187 persons to the square mile, about the same density as in Scotland.

The Swiss (as the people are called) are not so much a distinct nation as an offshoot from the population of the three neighbouring countries—Germany, France, and Italy. There is no Swiss language. In the western cantons, the people speak *French*; in the east, the *German* language is the common tongue. In one of the Swiss cantons—that of Tessin, to the south of the Alps—the people are of *Italian* origin, and speak the Italian language.<sup>1</sup>

**INDUSTRIES.**—1. The Swiss are a frugal and industrious race. Within the mountain-region the people are chiefly shepherds and herdsmen. Their cows, sheep, and goats constitute their wealth, and furnish their principal occupation. In summer, their cattle are pastured on the mountain-sides; in winter, they descend to the valleys.

2. In the more level parts of the country (that is, in the north and west) *manufactures* are extensively pursued. Silk and cotton goods are made; so also are watches, musical boxes, and various articles of jewellery. A vast number of watches,<sup>2</sup> the produce of Swiss industry, are annually exported to other countries. Geneva is the principal seat of this manufacture.

3. In spite of great natural disadvantages, the *commerce* of Switzerland is extensive. The *imports* are chiefly articles of food,<sup>3</sup> colonial produce, and raw material for manufacture; and the *exports*, manufactured goods and farm produce.<sup>4</sup>

**Internal Communication.**—Several magnificent military *roads* across the Alps, and excellent highroads; nearly 2,000 miles of *railway*;<sup>5</sup> a complete system of *telegraphs*, and an admirably conducted *postal service*.

**GOVERNMENT.**—Switzerland forms a federal republic. Each

1. According to the census of 1888, 2,022,530 speak German, 687,972 French, 156,606 Italian, and 55,978 Romansch.

2. Value of clocks and watches exported in 1890, £4,000,000.

3. In 1890, 8½ million pounds' worth of food stuffs, &c., was imported.

4. General imports, 1889, £28,000,000; exports,

£28,000,000. Trade with Great Britain and the British Colonies averages £6,000,000 annually.

5. About one mile of railway to every eight square miles of area. The Swiss railway system is connected with that of Italy by the St. Gothard Tunnel, and with France by the Mont Cenis Tunnel.

canton has an internal administration of its own, while the public affairs of the whole are regulated by a Parliament (consisting of deputies from the different cantons), which has its sittings at Berne.

The Swiss Parliament consists of two chambers: the "State Council," composed of 44 members, two from each canton, and the "National Council," composed of representatives elected directly by the people. The Federal Revenue and Expenditure each amount to about 2½ millions, while the Public Debt is under 2½ millions sterling.

The "Federal army" consists of about 120,000 men; the militia or Landwehr of over 80,000. There is also a "Landsturm" or war reserve of over 280,000 men. All men, from the age of 20 to 44, are liable to military service.

Education.—Education is compulsory and highly advanced, especially in the Protestant cantons, where one in five of the population attend school. There are training colleges for teachers in all the cantons. Higher education is given at the universities of Basle, Berne, Geneva, and Zurich.

Religion.—In religion, Switzerland is divided between the Protestant and the Romish Churches. Rather more than half the population belong to the former, which embraces chiefly the manufacturing cantons of the north and west.

**DIVISIONS and TOWNS.**—Switzerland comprehends twenty two cantons, the names of which, with the principal towns of each, are as follow:—

Cantons.	Towns.	Cantons.	Towns.
Berne, . .	Berne.	Zug, . . .	Zug.
Soleure, . .	Soleure (Solothurn).	Lucerne, . .	Lucerne.
Basle, . . .	Basle.	Unterwalden,	Stanz, Sarnen.
Aargau, . .	Aarau.	Uri, . . .	Altorf.
Zurich, . .	Zurich.	Fribourg, . .	Fribourg.
Schaffhausen,	Schaffhausen.	Neuchâtel, . .	Neuchâtel.
Thurgau, . .	Frauenfeld.	Vaud, . . .	Lausanne.
Appenzell, . .	Appenzell.	Geneva, . . .	Geneva.
St. Gall, . .	St. Gall.	Valais, . . .	Sion.
Glarus, . . .	Glarus.	Grisons, . . .	Chur or Coire.
Schwyz, . .	Schwyz.	Tessin, . . .	Bellinzona, Lugano.

The city of **BERNE** (48), which is on the banks of the Aar, ranks as the capital of the Swiss Confederation. Next in importance to it are Geneva, Zurich, and Basle, the first named of which has a greater population than any other town in Switzerland.

Geneva (73) lies at the foot of the beautiful lake called by its name, where the Rhone issues from its waters. Besides its manufacture of gold watches, Geneva is highly distinguished as a seat of learning, and was the early stronghold of the Reformed Church. Zurich (28, with suburbs, 90), also distinguished for its literary culture, is at the northern extremity of the Lake of Zurich, at the outlet of the river Limmat, which afterwards joins the Aar. Basle, or Basel (70), is in the north-west corner of Switzerland, at the great bend of the Rhine, and is the seat of considerable trade.

The Lake of Lucerne, in the heart of the mountain country, is enclosed by the cantons of Schwyz, Uri, Unterwalden, and Lucerne—known as the "forest cantons," the cradle of Swiss independence and the centre of Roman Catholic Switzerland. The well-known summit of the *Rigi* rises above the north-eastern shores of the lake.

## QUESTIONS ON SWITZERLAND.

1. Name the boundaries of Switzerland. What natural features do they embrace?
2. What kind of surface does Switzerland exhibit?
3. Name some of the principal Alpine summits that are within, or on the borders of, Switzerland. Which is the highest of the number?
4. Name some of the mountain passes that belong to the Swiss Alps.
5. Mention the principal rivers of Switzerland, and briefly describe the courses of the Rhine and the Rhone.
6. Name the principal lakes.
7. What is the highest of the Swiss waterfalls called? In what canton is it?
8. What productions of the soil belong to Switzerland?
9. What languages are commonly spoken by the Swiss people?
10. What industrial pursuits distinguish the Swiss nation?
11. Under what form of government is Switzerland?
12. How many cantons does Switzerland embrace? Which among them contains the seat of the general government?
13. In what parts of the country are the cities of Geneva, Zurich, and Basle? For what are the two former distinguished?

## GERMANY.

GERMANY includes that portion of Central Europe inhabited chiefly by German-speaking peoples, but neither the German provinces of Austria nor the German cantons of Switzerland are within the limits of the German Empire, which is a *Federal Union* of 25 States and the "Reichsland," or Imperial Territory, of Alsace-Lorraine.

**BOUNDARIES.**—The German Empire is bounded on the *north* by the North Sea, Denmark, and the Baltic; on the *south* by Switzerland and Austria; on the *east* by Austria and Russia; and on the *west* by France, Belgium, and Holland.

**EXTENT.**—The total *area* of the German Empire is 211,000 square miles, or about three and a half times that of England and Wales.

The *greatest length*, from south-west to north-east, is about 850 miles.

The *greatest breadth*, from north to south, is about 530 miles.

**COASTS.**—The total length of the coast-line is about 1,200 miles, of which 350 miles belong to the North Sea, and 850 to the Baltic. There are numerous inlets, but few good harbours. The principal *inlets* are the Jahde, the estuaries of the Weser and Elbe, the Gulf of Lübeck, Stettiner Haff, and the Gulf of Danzig, with the Frische Haff<sup>1</sup> and Kurische Haff.

The Frische Haff and the Kurische Haff are bounded on their seaward side by narrow "tongues" (*nehrungen*) of land. Neither of them exceeds two or three fathoms in depth. *Wilhelmshaven*, on the Jahde, is a strongly-fortified naval port, the "Sebastopol of the North Sea."

**ISLANDS.**—The Frisian Islands and Heligoland in the North Sea; Alsen, Fehmern, and Rügen in the Baltic.

The North Frisian Islands, and Alsen and Fehmern, were taken from Denmark in 1864. Rügen was ceded to Prussia in 1814. Heligoland,<sup>2</sup> about 50 miles north-west of the estuary of the Elbe, formerly belonged to Denmark, but was taken by the English in 1807, and ceded to Germany in 1890.

1. Frische Haff, freshwater sea.

2. Heligoland, Holy land; so called because

it formerly contained the temple of a Saxon goddess.

**NATURAL FEATURES.**—Germany is for the most part level, but includes many detached groups of high ground within its southerly and westerly divisions. The chief mountain-ranges are the *Eifel* and the *Vosges*, on the left bank; and the *Schwarz Wald*,<sup>1</sup> *Taunus*, and *Wester Wald*, on the right bank of the Rhine; the *Böhmer Wald*, *Erz Gebirge*,<sup>2</sup> and *Riesen Gebirge*<sup>3</sup> on the Austrian frontiers; and the *Harz Mountains*, *Teutoburger Wald*, *Vogelsberg*, and *Thüringer Wald*, between the basins of the Elbe and the Rhine.

The highest point in Germany north of the Danube is *Schneekoppe*, 5,274 feet, in the *Riesen Gebirge*. The peak of *Zug-spitz*, in South Bavaria, attains an elevation of 9,716 feet. The absolute height of the ranges of middle Germany seldom exceeds 8,000 feet. The mean elevation of the high plains of Bavaria is 1,600 feet, and of the whole empire about 700 feet.

**RIVERS.**—The principal rivers are the *Rhine*, *Ems*, *Weser*, and *Elbe*, flowing into the North Sea; the *Oder*, *Vistula*, and *Niemen*, flowing into the Baltic; and the *Danube*, flowing into the Black Sea.

1. The *Rhine*.—The sources and upper course of the Rhine are in Switzerland; the portion between Lake Constance and Basle forms the boundary between Switzerland and Germany. From Basle it flows north to Mentz, then, after a short curve to the west, finally turns north-west at Bingen and enters Holland near Clèves. The *tributaries* of the Rhine within Germany are the Neckar, Main, Lahn, Ruhr, and Lippe on the right bank, and the Moselle on the left. The Rhine is navigable from the sea to the Falls of Schaffhausen. The portion within Germany, especially between Mentz and Bonn, is celebrated for its beauty, and the *Falls of the Rhine*, near Schaffhausen, are much admired.

2. The *Ems* rises in the *Teutoburger Wald*, and flows into the *Dollart See*, in the north-west of Germany, after a course of 258 miles.

3. The *Weser* (380 miles long) is formed by the junction of the *Fulda* and *Werra* at *Münden*, and is navigable throughout the greater part of its course.

4. The *Elbe* rises in the *Riesen Gebirge*, and flows in a generally north-west direction to the North Sea. Total length, 600 miles. *Tributaries*: the *Mulde* and *Saale* on the left bank, and the *Spree* and *Havel* on the right.

5. The *Oder* rises in the *Sudeten Gebirge*, and flows north-west into the *Stettiner Hafl*. Its principal affluent is the *Warta*. Total length, 553 miles.

6. The "lower" course only of the *Vistula* and *Niemen* are within Germany; the rest belong to Russia. The *Vistula* enters the *Gulf of Danzig* by two mouths, the *Niemen* falls into the *Kurische Hafl*.

7. The *Danube* rises in the *Schwarz Wald*, and enters Austria at *Passau*, after receiving the *Iller*, *Lech*, and *Isar*, from the *Tyrolese Alps*.

**LAKES.**—Lake Constance, or *Boden See*, on the south; *Ammer See*, *Würm See*, *König See*, and *Chiem See*, in Bavaria.

**CLIMATE.**—The climate of Germany resembles, in the main, that of the corresponding latitudes of Britain;\* it is, however, somewhat colder, and the winters are more severe.

1. The *Schwarz Wald* (i.e., *Black Forest*) separates the basins of the Rhine and Danube.  
2. *Erz Gebirge*, metal mountains.

3. *Riesen Gebirge*, giant mountains.  
4. The mean annual temperature is 48°, nearly the same as that of Great Britain.

In some of the uplands the winters are remarkably severe, snow often lying on the ground from October to May; but in some of the lower river-valleys the climate is delightful, and the vine grows to perfection.

**PRODUCTIONS.**—The *forests* are extensive, and give shelter to numerous wild animals, such as the *wolf*, *wild boar*, and various *deer*. The minerals include *coal*, with *iron* and other metals; these are chiefly found in the Rhine province, and in the neighbourhood of the Harz Mountains. *Amber*,<sup>1</sup> *precious stones*, and some *gold*, *silver*, and *copper*, are also found.

Among the many *mineral springs* of Germany, the most famous are those of Baden-Baden, Selters, Wiesbaden, and Aix-la-Chapelle.

**INHABITANTS.**—The total population of the empire, according to the last census (1890), was 49½ millions, or an average of 234 persons to the square mile,<sup>2</sup> or less than half that of England.<sup>3</sup>

Nearly 90 per cent. of the people are *Germans*, and the German language is almost universally spoken. There are about 2,500,000 Poles, 500,000 Jews, and 280,000 Walloons and French.

**INDUSTRIES.**—Agriculture has hitherto been, and in some of the German States still is, the leading industry, but, as a whole, Germany is becoming more and more a manufacturing country, and its *textile and metal goods* now successfully compete with British, French, Belgian, and American manufactures, while, as a commercial nation, Germany is second only to England, the greatest commercial country in the world.

1. **Agriculture** employs two-fifths of the German population. The various *grains*, especially *rye* (which forms the chief food of the lower orders), are very largely raised; as also is *flax*, for the supply of the linen manufacture, and *beetroot*, for the manufacture of sugar. The *vine* is extensively grown in Bavaria, Würtemberg, and the Rhine provinces.

2. **Manufactures.**—North Germany, on the whole, is more manufacturing than its southern half, and Prussia takes the lead in this department of industry. The *linen* manufacture is extensively pursued in Silesia; the *cotton*, *woollen*, and *silk* manufactures, with important *iron* and *steel works* in the western half of the kingdom. Berlin is especially noted for its glass, porcelain, jewellery, and fancy goods in general.

3. **Commerce.**—The trade of the German Empire is under the control of the *Zollverein* or Customs League formed in 1818, and renewed in 1865, and which at present embraces all the German States. The **leading imports**,<sup>4</sup> in order of value, are *raw cotton* and *wool*, *coffee*, *raw silk*, *rye*, *woollen yarn*, *barley*, *hides*, *petroleum*, *horses*, and *wheat*. The **chief exports**,<sup>5</sup> arranged similarly, are *sugar*, *mixed silk and cotton cloth*, *woollen fabrics*, *haberdashery*, *leather goods*, *coal*, *hosiery*, *paper*, *cotton cloth*, *wooden wares*, *aniline dyes*, and *hops*.<sup>6</sup>

**Ports.**—The chief ports of Germany are **Hamburg** (the commercial capital of the empire); **Bremen**, on the *North Sea*; and **Stettin**, **Kiel**, **Lübeck**, **Danzic**, **Königsberg**, and **Memel**, on the *Baltic*.

1. *Amber* is found on the shores of the Baltic.  
2. Excluding Hamburg, the average is greatest in Saxony, where it is 550 per square mile.  
3. The density of population in England, in 1891, was 540.

4. Total imports, 1890, £218,645,000.  
5. Total exports, 1890, £170,490,000.  
6. Exports from Germany to the United Kingdom, in 1890, £26,000,000; imports therefrom, £30,500,000.



**Internal communication** is maintained by good *roads* and about 26,000 miles of *railways*, extending through every part of the country, and connecting all its chief towns with one another, and with the North Sea and Baltic ports, and also, through Switzerland and Austria, with the Adriatic and Mediterranean ports.<sup>1</sup> The *river-navigation* is extensive, and is greatly facilitated by *canals* joining the principal navigable rivers.

**GOVERNMENT.**—By the constitution of April 1871, all the German States “form an eternal union for the protection of the realm and the care of the welfare of the German people.” The *legislative* power is vested in two Chambers—the *Bundesrath* or Federal Council, representing the States in union; and the *Reichstag* or Diet of the Realm, elected by the people. But the supreme direction of all military and political affairs is in the hands of the King of Prussia, who is thus the Emperor of Germany.

**Finance.**—The general *Revenue* and *Expenditure* of the empire for 1891-2 are each estimated at about 56 millions sterling. The *Imperial Debt* is under 50 millions.

**DIVISIONS.**—Before the Austro-Prussian war of 1866, Germany was politically divided into numerous States (originally thirty-nine in number), which together formed the Germanic Confederation, with Austria at the head, and Prussia occupying the second place in rank and importance. The decisive success gained by the arms of Prussia in the campaign of that year involved the break-up of the old confederation, and the establishment of a “North German Confederation,” from which Austria was expressly excluded.

The Franco-German war of 1870-71 involved another (and more important) change, viz. :—the creation of a new German Empire, in favour of the royal house of Prussia. All the German States (Austria, Luxemburg, and the petty principality of Liechtenstein excepted) are embraced within the newly-constituted empire. Alsace and the chief part of Lorraine—previously attached (the latter during upwards of a century, the former for nearly double that period) to France—were restored to Germany, and form a distinct dependency of the Empire. Prussia is thus the recognised head of the German nation, and is virtually sovereign over fifty millions of people—the vast majority of them Germans.

**Army and Navy.**—Every German, being of full age and otherwise fit, is liable to military service. The Imperial army, on the peace footing, numbers upwards of 490,000 men, but in war time over 1½ millions, besides other reserve forces, which bring up the total of trained soldiers to 3½ millions, while the total available force of all classes is not less than 5½ millions. The German *navy* consists of 80 vessels (of which 30 are ironclads) manned by 18,000 men. The *naval ports* are Wilhelmshaven on the North Sea, and Kiel on the Baltic.

**EDUCATION.**—Education is general and compulsory throughout the empire. Public *elementary schools* in every town and village. Twenty-one *universities*, of which fourteen are Protestant.

In Prussia there are eleven grade schools, but attendance is compulsory only at the elementary schools. The fees at the higher schools are so low that they are attended by the children of the lower as well as the middle and higher classes, hence the superiority of the Germans to all other European nations in point of education and general culture. The whole of the educational establishments of Prussia, both public and private, are under the control of the Minister

1. The railway-system of Germany is connected with that of Italy *via* the great St. Gotthard Tunnel.

of Public Instruction, but the universities are only directly maintained by the Government; all other schools and colleges being mainly supported from local rates.

**RELIGION.**—The majority of the Prussians are *Protestants*, but South Germany is chiefly *Roman Catholic*. There are over half a million *Jews*.

**COLONIAL POSSESSIONS.**—The German annexations in Africa and the Pacific are estimated to have an area of 1 million square miles, and a population of 5½ millions.

The most important of these so-called "colonies" in the *Western Pacific* are **Kaiser Wilhelms Land** in New Guinea, the **Bismarck Archipelago**, the **Solomon Islands**, and the **Marshall Islands**.

In *Africa*, the German possessions embrace three distinct and extensive regions, and one smaller territory.

**German East Africa** embraces the vast territory lying between the Rovuma River and Kilimanjaro, and extending inland from the coast to Lakes Nyassa, Tanganyika, and the Victoria Nyanza. The southern boundary is formed by the Rovuma, and a line drawn north of the Stevenson Road from Lake Nyassa to Lake Tanganyika. Between Tanganyika and the Victoria Nyanza the German boundary "marches" with that of the Congo Free State. The coast belt was, until 1890, a part of the Sultanate of Zanzibar, but the Sultan's right was then acquired by Germany.

**German South-West Africa** extends along the coast for over 900 miles between the mouth of the Orange and that of the Cunene River, and inland to the western boundary of British Bechuanaland, and, in the extreme north-east, along the Chobe Valley to the Zambesi itself. Both in Damaraland, north of Walfish Bay (which remains British), and in Namaqualand to the south, German authority is only nominal, and the country is almost entirely undeveloped.

The German Protectorate of the **Cameroons** has a sea-board of 190 miles on the Bight of Biafra, and extends inland to the meridian of 15° E. The soil is fertile, and capable of producing cocoa, tobacco, and other tropical productions in abundance.

**Togoland**, with **Little Popo** and **Porto Seguro**, situated on the Slave Coast, in Upper Guinea, has an area of 16,000 square miles.

#### QUESTIONS ON THE GERMAN EMPIRE.

1. How is the "German Empire" bounded?
2. Name the principal inlets and islands.
3. Describe briefly the natural features of Germany, noting especially the highest mountains and most important rivers.
4. Enumerate the principal lakes.
5. State what you know of the climate of Germany?
6. What are the chief productions of Germany?
7. What is the total population of the empire? To what race does the vast majority of the people belong?
8. What are the chief industrial pursuits of the German people?
9. What is the *Zollverein*, and when was it formed?
10. Enumerate the principal articles of export and import.
11. What are the means of inter-communication?
12. Under what form of government is the empire?
13. How do you account for the superiority of the Germans to other nations as regards education?
14. What is the prevailing form of religion in North and South Germany?
15. How was Germany divided politically previous to the creation of the "empire"?
16. What States are now included in the empire?
17. What do you know of the colonial possessions of Germany?

The following table shows the States included in the German Empire:—

STATES.	CAPITALS.
1. Kingdoms of { PRUSSIA . . . . . BAVARIA . . . . . WÜRTENBURG . . . . . SAXONY . . . . .	Berlin. Munich. Stuttgart. Dresden.
2. Grand Duchies of { BADEN . . . . . MECKLENBURG-SCHWERIN . . . . . HESSE . . . . . OLDENBURG . . . . . SAXE-WEIMAR . . . . . MECKLENBURG-STRELITZ . . . . .	Carlsruhe. Schwerin. Darmstadt. Oldenburg. Weimar. Neu Strelitz.
3. Duchies of { BRUNSWICK . . . . . SAXE-MEININGEN . . . . . ANHALT . . . . . SAXE-COBURG-GOTHA . . . . . SAXE-ALTENBURG . . . . .	Brunswick. Meiningen. Dessau. Gotha and Coburg. Altenburg.
4. Principalities of { LIPPE-DETMOLD . . . . . WALDECK . . . . . SCHWARZBURG-RUDOLSTADT. SCHWARZBURG-SONDERSHAUSEN REUSS (YOUNGER LINE) . . . . . SCHAUMBURG-LIPPE . . . . . REUSS (ELDER LINE) . . . . .	Detmold. Arolsen. Rudolstadt. Sonderhausen. Gera. Buckeburg. Greiz.
5. The Hanse Towns of { HAMBURG. LÜBECK. BREMEN.	
6. Reichsland of Alsace-Lorraine . . . . .	{ Strassburg. Metz.

## I. PRUSSIA.

PRUSSIA<sup>1</sup> includes about two-thirds of the total area of the German Empire, and is bounded on the *north* by the North Sea, Denmark, and the Baltic; on the *east*, by Russia; on the *south*, by Austria, Saxony, Thuringia, Bavaria, Baden, and others of the smaller German States; on the *west*, by Holland, Belgium, the Grand Duchy of Luxemburg, and the Reichsland of Alsace-Lorraine.

The **greatest length** from the western frontier, near Maestricht, to the extreme eastern limit of East Prussia, is 740 miles; and the **greatest breadth**, from the northern limit of Schleswig-Holstein to the southern borders of the Rhine Province, is 455 miles. The **area** is 136,000 square miles, nearly two and a half times that of England and Wales.

The **natural features** of Prussia have been already noticed in the preceding description of Germany. The *mountains, rivers, and lakes* within Prussia may be distinguished from those of the rest of the empire by referring to the map.

**INHABITANTS.**—Prussia now contains nearly 30 million inhabitants, an average of over 220 to the square mile, or considerably less than one-half the density in England.

About 2½ millions are *Poles*, who form the majority in the provinces of Posen and Prussia Proper; the remainder are *Germans*. The most thickly-populated portions of the kingdom are the Rhine countries and the province of Silesia.

**Education** is in a highly advanced state among the Prussian people, and the higher schools and universities, as well as the elementary schools, are under the direct control of the Government.<sup>2</sup> Prussia has also numerous *Schools of Agriculture, Forestry, and Mining*.

**Religion.**—The majority of the people of Prussia are *Protestants*, but there are nearly 10 million *Roman Catholics*, chiefly in the Rhine Province, Posen, and Brandenburg. *Jews* are numerous in the towns.

**GOVERNMENT.**—The kingdom of Prussia is a hereditary monarchy, the legislative authority being vested in the Sovereign and a representative House of Lords and an elected Chamber of Deputies.

**DIVISIONS.**—Prussia contains the following provinces and towns:—

Provinces.	Chief Towns.	Provinces.	Chief Towns.
Brandenburg .	Berlin, Potsdam, Frankfort-on-the-Oder.	Hanover . . .	Hanover, Göttingen, Hildesheim, Emden.
East Prussia .	Königsberg, Memel, Tilsit.	Westphalia . .	Münster, Minden, Dortmund.
West Prussia .	Danzig, Elbing, Thorn.	Hessen-Nassau .	Frankfort-on-the-Main, Cassel, Hanau, Wiesbaden, Homburg.
Pomerania . .	Stettin, Stralsund, Swinemünde.	Rhine Province .	Cologne, Bonn, Düsseldorf, Barmen, Essen, Aachen (Aix-la-Chapelle), Elberfeld, Crefeld, Coblenz, Trier.
Posen . . . .	Posen, Bromberg.	Hohenzollern .	Hechingen, Sigmaringen.
Silesia . . . .	Breslau, Gorkitz, Liegnitz.		
Saxony . . . .	Magdeburg, Halle, Erfurt.		
Schleswig-Holstein .	Altona, Kiel, Tönning, Flensburg.		

Of these provinces, Schleswig-Holstein was acquired from Denmark in 1864; Hanover and Hessen-Nassau (within which latter are embraced the former

1. Prussia, from Borussia, the country of the Borser, who formerly inhabited what is now Prussia Proper.

2. By the laws of Prussia, parents are compelled to send their children to school whether they can pay the fees or not.

duchy of Nassau, and the electorate of Hessen-Cassel, together with the city of Frankfort-on-the-Main) were absorbed within Prussian rule after the Austro-Prussian war of 1866. Hohenzollern is a detached territory, enclosed between the States of Württemberg and Baden.

**BERLIN** (1,574), the capital of Prussia, and the largest city of Germany, is on the river Spree, which joins the Havel (an affluent of the Elbe). Berlin is in all respects a flourishing city, one of the finest of European capitals in point of external aspect, and is noted for its iron, porcelain, and other manufactures. **Potsdam** (51), to the south-west of Berlin, forms the headquarters of the Prussian army.

**Breslau** (300), in Silesia (on the river Oder), is the second city of Prussia in point of population, and is the centre of extensive trade. **Magdeburg** (201), in Prussian Saxony, is on the river Elbe. **Stettin** (116), near the mouth of the Oder, is one of the principal seaports. **Danzig** or **Dantzig** (120) is also a great seat of the foreign commerce of Prussia; it lies near the Baltic, upon one of the channels through which the Vistula reaches the sea. **Königsberg** (161), the capital of East Prussia, is further to the eastward, near the outlet of the river Pregel. **Memel**, another important seaport, lies at the entrance of the river Niemen into the Kurische Haff—an inland extension of the Baltic.

The **RHINE PROVINCE** contains a greater number of large towns than any other part of the Prussian territory.

**Cologne** (282), the most considerable, is on the left bank of the Rhine; its cathedral, and its well-known "Eau de Cologne," give it celebrity. **Eberfeld** (107), with the adjoining town of **Barmen** (103), is the chief seat of the cotton manufacture. **Aachen** (116) is a populous manufacturing city, to the westward of Cologne, and near the Belgian frontier. **Düsseldorf** (146) is an important centre of trade and industry on the Rhine, 22 miles north of Cologne. **Essen** (66) has large coal and iron mines; here also are the famous "Krupp" Works. **Trèves** is on the banks of the Moselle; **Coblenz** is at the junction of that river with the Rhine.

The city of **HANOVER** (165), the capital of the former kingdom of that name, stands in the midst of the plain of northern Germany, on the little river Leine, an affluent of the Weser.

**Göttingen**, to the southward of Hanover, is the seat of a celebrated university. **Emden**, the chief port of the Hanoverian territory, is at the outlet of the river Ems into the Dollart, a gulf of the North Sea. **Cassel**, the former capital of electoral Hesse, stands on the river Fulda, one of the two main affluents of the Weser. **Wiesbaden** (56), the capital of the former duchy of Nassau, lies a short distance from the right bank of the Rhine, below the junction of the Main. **Frankfort-on-the-Main** (180), formerly a free city, is situated, as the name implies, on the river Main, which joins the Rhine about twenty miles below. It was formerly the seat of the Germanic Diet. **Homburg** is a few miles to the north of Frankfort.

**SOHLESWIG-HOLSTEIN** consists of two extensive tracts of country (divided by the course of the little river Eyder, which flows into the North Sea), which, prior to 1864, had been attached during several centuries to the crown of Denmark.

**Altona** (143), the largest city of this territory, lies on the Elbe, immediately below Hamburg, of which it forms indeed a mere suburb. **Kiel** (52), in a more northwardly part of Holstein, lies at the head of an inlet of the Baltic, and has a good harbour. **Tönning** is a port on the North Sea, at the mouth of the Eyder. **Lauenburg** is on the right bank of the Elbe, above Hamburg.

## II. SMALLER STATES OF NORTH GERMANY.<sup>1</sup>

The smaller States of North Germany, included within the German Empire, comprise the *Kingdom of Saxony*; the *Grand-Duchies of Mecklenburg-Schwerin*, *Mecklenburg-Strelitz*, *Oldenburg*, *Saxe-Weimar*; the *Duchies of Brunswick*, *Anhalt*, *Saxe-Meiningen*, *Saxe-Coburg-Gotha*, *Saxe-Altenburg*; the *Principalities of Lippe-Detmold*, *Waldeck*, *Schwarzburg-Rudolstadt*, *Schwarzburg-Sondershausen*, *Reuss*, *Schaumburg-Lippe*, together with the *Hanse Towns—Hamburg*, *Lübeck*, *Bremen*, and the *Reichsland of Alsace-Lorraine*, acquired from France in 1871.

**SAXONY** is intermediate in position between Prussia and the Austrian province of Bohemia, and is traversed by the river Elbe. It is bordered, on the side of Bohemia, by the Erz Gebirge and the Riesen Gebirge. Its chief towns are Dresden (the capital), Leipzig, Meissen, Chemnitz, and Freiberg.

**Dresden** (276) stands beside the river Elbe, and is distinguished by its general beauty of aspect and its fine collections of works of art. **Meissen**, also on the Elbe, a few miles below Dresden, is celebrated for its porcelain. **Leipzig** (293, or with suburbs 353) is situated near the river Elster, in the plain which lies to the west of the Elbe; it is distinguished for its university and its book trade, as well as for the great victory gained by the German over the French arms in 1813. **Chemnitz** (139), the "Manchester of Saxony," is the principal manufacturing town; and **Freiberg** is the centre of an important mining district.

**MECKLENBURG**, divided into two distinct grand-duchies, of which the more westward, to which Schwerin belongs, is in the north of Germany, bordering on the Baltic Sea.

Its chief towns are **Schwerin** and **Neu Strelitz**, the respective capitals of its two divisions.

**OLDENBURG** is in the north-west of Germany. It borders on the North Sea, and is enclosed on the land side by the territory of Prussia.

Its chief town is **Oldenburg** (20), on the river Hunte, a tributary of the Weser.

1. The area (square miles) and population of the North German States are:—

	Area.	Pop.		Area.	Pop.
Saxony .. .. .	5,886	3,185,000	Saxe-Coburg-Gotha .. .. .	765	199,000
Mecklenburg-Schwerin .. .. .	5,197	675,000	Saxe-Altenburg .. .. .	517	161,000
Mecklenburg-Strelitz .. .. .	1,144	98,000	Lippe .. .. .	475	123,000
Oldenburg .. .. .	2,503	341,000	Schaumburg-Lippe .. .. .	153	37,000
Saxe-Weimar .. .. .	1,404	314,000	Waldeck .. .. .	438	86,000
Brunswick .. .. .	1,441	372,000	Schwarzburg-Rudolstadt .. .. .	367	84,000
Anhalt .. .. .	917	248,000	Reuss .. .. .	446	103,000
Saxe-Meiningen .. .. .	964	215,000	Schwarzburg-Sondershausen .. .. .	387	74,000

**SAXE-WEIMAR**, the most considerable of the smaller Saxon States, lies in the very centre of Germany, within and adjoining the tract known as the Thuringian Forest.

Its chief towns are **Weimar**, the grand-ducal capital, and **Jena**.

**BRUNSWICK** is a small inland territory, completely enclosed by the Prussian dominions.

Its chief town, **Brunswick** (100), lies on the river Ocker, a tributary of the Aller, which flows into the Weser.

**ANHALT** comprehends a small, but for the most part a level, tract of country crossed by the river Elbe, and enclosed by the Prussian territory.

It contains the towns of **Dessau**, the capital, on the Mulde, near its junction with the Elbe, and **Bernburg**, on the Saale, an affluent of the Elbe.

**SAXE-MEININGEN**, **SAXE-COBURG-GOTHA**, and **SAXE-ALTENBURG**, all lie within the same central hill-region as Saxe-Weimar, and are traversed by the heights of the Thuringian Forest.

The chief towns are respectively **Meiningen**, on the Werra, an affluent of the Weser; **Coburg**, on the Itz, an affluent of the Main; **Gotha**, on the Leina; and **Altenburg**, on the Pleisse, a tributary of the Elster.

**LIPPE** and **SCHAUMBURG-LIPPE** are two adjoining territories within the basin of the Weser in the north-west of Germany, and completely enclosed by Prussia.

The towns of **Detmold** and **Buckeburg** are their respective capitals.

**WALDECK** is a small territory to the south of Lippe, and also enclosed by Prussia.

**Arolsen**, the capital, lies 25 miles north-west of Cassel.

**SCHWARZBURG-RUDOLSTADT** and **SCHWARZBURG-SONDERSHAUSEN** are small (and partly detached) territories in the central part of Germany, enclosed between Prussia and the lesser Saxon States. The former embraces part of the Thuringian Forest.

**Rudolstadt** and **Sondershausen** are their respective capitals.

**REUSS** embraces some small tracts of country between Prussia and the various Saxon States, watered by the Elster and Saale.

It is divided into the Elder and Younger branches; the town of **Greiz** is the capital of the former, **Schleitz** of the latter.

**THE HANSE TOWNS.**—For several centuries the cities of **Hamburg**, **Lübeck**, and **Bremen** enjoyed the privileges of distinct States, but in 1888 they ceased to be "Free Ports," and joined the *Zollverein* or German Customs Union.<sup>1</sup>

**Hamburg** (324) is the great emporium of the foreign commerce of Germany, and the seat of an immense trade with all nations. More than half the trade of Germany with other countries passes through **Hamburg**, and the commerce between it and the United Kingdom is very large; the imports from the United Kingdom alone amounting to more than 20 millions sterling. This great port is situated on the north bank of the Elbe, 70 miles from the sea. **Cuxhaven**, at the mouth of the Elbe, also belongs to **Hamburg**.

1. **Hamburg**, **Lübeck**, and **Bremen** were the principal cities in the famous **HANSEATIC LEAGUE**, which, during the Middle Ages, controlled the

commerce of north-western Europe, and at the present day they are still the most important commercial centres in the empire.

Lübeck (68) stands on the Trave, which enters the Baltic adjacent to the east coast of Holstein. It is less important now than at a former period. Travemünde, at the mouth of the Trave, is its outpost.

Bremen (125), situated on the Weser, 40 miles above its mouth, is only second to Hamburg as a seat of commerce. Large vessels load and unload at Bremerhaven, at the mouth of the river.

**ALSACE-LORRAINE**, the territory transferred from France to Germany on the conclusion of the war of 1870-71, embraces a tract lying along the left bank of the Rhine, between that river and the chain of the Vosges (Vogesen) Mountains, and stretching thence along the former German border, in the direction of Luxemburg. Part of the Moselle valley, as well as the left bank of the Rhine from the Swiss border southward to the parallel of 49°, is within its limits. The "Reichsland" or Imperial Territory of Alsace-Lorraine has a total area of 5,670 square miles, and a population of upwards of 1½ millions, of whom scarcely a quarter of a million speak French.

**ALSACE** (German, *Elsass*) includes Strassburg (123), a large and ancient city, seated near the left bank of the Rhine, beside its affluent, the Ill; Mülhausen (70), a great centre of cotton and other manufacturing industry, situated between 50 and 60 miles further south; and Colmar, near the foot of the Vosges, about 40 miles south-west of Strassburg.

The principal place within the portion of **LORELAINE** (German, *Lothringen*) transferred to Germany is Metz (54), a strongly-fortified town on the Moselle, and of much note in former as well as in recent history.

### III.—STATES OF SOUTH GERMANY.

The following States of South Germany are included within the German Empire<sup>1</sup>:—The *Kingdoms* of Bavaria and Württemberg and the *Grand Duchies* of Baden and Hesse.

The southern half of Germany is more elevated and mountainous than North Germany. It consists of plateaux of moderate elevation, crossed by detached mountain chains and groups, and rising gradually to the southward into the high region of the Alps.

The Danube (German, *Donau*) is the great river of South Germany, which it crosses from west to east, passing below Vienna into Hungary. Among the numerous affluents of the Danube, within the German portion of its course, are the Lech, Isar, and Inn, on its right or southern bank; the Altmühl, Nab, Regen, and March, on its left or northern bank.

**BAVARIA** has an area of nearly 30,000 square miles, and a population of about 5½ millions, and thus, in point of size and population, ranks next to Prussia among the German States. It forms an upland plain or tableland about sixteen hundred feet above the level

1. The area (in square miles) and population (according to the last Census) of the South German States are:—

	Area.	Pop.	Area.	Pop.	
Bavaria .. . . .	29,632	5,420,000	Württemberg .. .. .	7,519	1,586,000
			Baden .. .. .	5,381	1,801,000
			Hesse .. .. .	3,000	966,000



of the sea. In the south, Bavaria includes some of the outlying branches of the Alps; on the east, it is divided from Bohemia by the chain of the Böhmer Wald. Besides the main body of the Kingdom, Bavaria comprehends a smaller and detached piece of territory—the Palatinate or Rheinpfalz—to the west of the Rhine. The chief towns of Bavaria are Munich<sup>1</sup> (the capital), Nuremberg, Augsburg, Ratisbon, Bamberg, Würzburg, and Speyer.

**MUNICH** or **MÜNCHEN** (348) stands on the river Isar, a considerable affluent of the Danube, in the midst of the plateau-land of South Germany, at an elevation of 1,700 feet above the sea-level; it is noted for its fine collections of painting and sculpture. **Augsburg** (66), is on the Lech, which also joins the Danube, to the north-west of the Bavarian capital. **Nuremberg**, or **Nürnberg** (142), lies in the plain to the north of the Danube, on a small affluent of the Main. **Würzburg** (55) is on the right bank of the Main. **Ratisbon**, or **Regensburg** (36), is on the Danube, opposite the junction of the Regen. **Speyer**, or **Spire**, is within the detached portion of Bavarian territory to the west of the Rhine, and on the left bank of that river.

**WÜRTEMBERG** is immediately to the west of Bavaria. Its northern portion is traversed by the Neckar, an affluent of the Rhine, but its southern districts belong to the basin of the Danube.

The capital, **Stuttgart** (140), lies near the left bank of the Neckar. **Ulm** is an ancient city on the Danube, close to the Bavarian border, and is strongly fortified.

**BADEN**<sup>2</sup> is a long and narrow tract of country, lying on the east bank of the Rhine, and traversed by the range of the Schwarz Wald or Black Forest.

Its capital, **Carlsruhe** (61), lies a few miles east of the Rhine. **Mannheim** (61) is at the junction of the Neckar and Rhine. **Heidelberg**, on the Neckar, is a famous university town.

The Grand Duchy of **HESSE** comprehends two detached portions of territory. The southern portion is crossed by the Rhine, above the junction of the Main; the northern division is to the north of the Main.

The chief cities are **Darmstadt** (the capital) and **Mentz**. **Darmstadt** (43) lies 11 miles east of the Rhine; **Mentz** (66) (*Ger. Mainz, Fr. Mayence*), is on the west bank of the Rhine, opposite the junction of the Main, and is strongly fortified.

**LUXEMBURG**, which has an area of 1,000 square miles, and a population of 213,000, lies between the Rhenish province of Prussia and Belgium.

The Grand Duchy of Luxemburg, to which the Duke of Nassau succeeded the late King of Holland as Grand Duke in 1890, was declared neutral territory by the Treaty of London, in 1867, when the fortifications of its capital, **Luxemburg** (18), were dismantled. The administration of the territory (which for commercial purposes only is included in the German Zollverein) is personally controlled by the Grand Duke, and its neutrality is guaranteed by the Great Powers.

1. Munich, German, *München*; from *mönche*, monks. 2. Baden, from the town of the same name, celebrated for its baths.

**LIECHTENSTEIN**, the smallest of the German States, adjoins the eastern border of Switzerland, and *practically* belongs to the Austrian Empire, but has never been formally annexed.

The principality has an area of 60 square miles, and a population of about 9,000, who are in the enviable position of not being liable to conscription, and of having no taxes to pay. Vaduz, its capital, is merely a castle.

#### QUESTIONS ON PRUSSIA AND THE SMALLER STATES OF GERMANY.

1. How is Prussia bounded?
2. What is the length, breadth, and area of Prussia?
3. What does the population of Prussia amount to? Which portions of the kingdom are most densely populated?
4. Enumerate the *wassersates* and *riyers* that strictly belong to Prussia.
5. In what provinces, respectively, are Breslau, Stettin, Magdeburg, Aachen, Münster, and Danzig?
6. Which of the provinces contains the greatest number of large towns? Name some of the latter.
7. For what are Elberfeld, Cologne, Düsseldorf, and Danzig respectively distinguished?
8. In what portion of the Prussian dominions are Göttingen, Emden, Cassel, Wiesbaden, and Kiel, respectively?
9. Describe the condition of Frankfurt-on-the-Main. Since what date has it been annexed to Prussia? What was its previous condition?
10. Which of the smaller States of North Germany ranks as a kingdom? Which of them form grand duchies? Which duchies? Which principalities?
11. In what States are, respectively, Dresden, Leipzig, Jena, Dessau, Coburg, and Detmold?
12. Name the three 'free cities' of Germany, and describe the situation of each.
13. Describe the situation of Alsace-Lorraine, and name the principal towns within the respective portions of the territory it embraces.
14. In what respect does South Germany differ, as to its natural features, from the northern half of Germany?
15. Name the great river of southern Germany, also its principal tributaries within German limits.
16. What States are within South Germany, and what are their respective forms of government?
17. Name the principal towns of Bavaria, also those of Würtemberg.
18. In what States, respectively, are Würzburg, Ratisbon, Ulm, and Mentz?
19. Describe the situation of the Grand Duchy of Baden, and name its principal towns.
20. By what river is the territory of Hessen-Darmstadt traversed? What are its chief towns?
21. Describe the position of Luxemburg, and its administration.
22. Which is the smallest of the German States? Describe its situation.

#### AUSTRIA-HUNGARY.

**AUSTRIA-HUNGARY**, the great Dual Empire of Central Europe, is, next to Russia, the largest State on the Continent, and is surpassed in point of population only by Russia and Germany.

**BOUNDARIES.**—Austria-Hungary is bounded on the *north* by Germany; on the *east* by Russia and Roumania; on the *south* by Roumania, Servia, the Adriatic Sea, and Italy; on the *west* by Switzerland and Bavaria.

The *frontier-line* of the empire is about 4,500 miles long, and is for the most part formed by strongly-marked natural features, but its natural compactness is politically neutralised by the heterogeneous character of its population, which consists of Slavs, Germans, Magyars, and other races.

**EXTENT.**—The area of Austria<sup>1</sup> proper is 116,000 square miles, and of Hungary 125,039 square miles. Including Bosnia and Herzegovina,<sup>2</sup> the empire has a total area of 265,000 square miles, about four and a half times the area of England and Wales.

The *greatest length*, from east to west, is about 800 miles.

The *greatest breadth*, from north to south, is nearly 500 miles.

1. Austria, Ger. *Oesterreich*, eastern kingdom, so called because it formed the *eastern* portion of the dominions of Charlemagne.

2. The minor Principality of Liechtenstein also practically belongs to Austria-Hungary.

**COASTS.**—The only sea-coast which belongs to Austria is at the head and on the eastern side of the Adriatic, and is about 500 miles in length, *i.e.*, 1 mile of coast to every 500 square miles of area.

1. **Capes.**—Punta de Promontore, the southern extremity of Istria; and Punta della Planca, on the coast of Dalmatia.

2. **Inlets.**—Gulfs of Trieste, Quarnero, and Cattaro; the last of which forms by far the best harbour in the Adriatic.

3. **Islands.**—Numerous small islands along the Adriatic coast, of which the principal are:—Cherso and Veglia, in the Gulf of Quarnero; Pago, Grossa, Brazza, and Lissa, off the coast of Dalmatia.

**MOUNTAINS.**—Austria-Hungary includes the *Bohemian Mountains* in the north-west, the eastern portions of the *Alps*, and the whole of the *Carpathian mountain-system*, besides several minor ranges. The Alps belong to the Austrian provinces of the empire; the Carpathians to the Hungarian countries.

1. The **Bohemian Mountains** enclose Bohemia and include the Sudeten Gebirge, Riesen Gebirge, Erz Gebirge, and the Böhmer Wald. The highest point is *Schneeckoppe* (5,274 feet), in the Riesen Gebirge.

2. The **Austrian Alps** include the Rætian Alps, with *Ortler Spitz*, 12,852 feet; the Noric Alps, with *Gross Glockner*, 12,766 feet; the Carnic Alps, with *Kellerwand*, 9,500 feet; and the Julian Alps, with *Terglou*, 10,866 feet. The principal passes over the Austrian Alps are the *Stelvio Pass* (9,177 feet), the loftiest carriage-road in Europe; and the *Brenner Pass* (4,660 feet), traversed by a carriage-road and railway, the latter opened in 1867.

3. The **Carpathians** extend for 900 miles in a semicircle from the Danube, near Pressburg, to Orsova on the same river. The culminating point is *Mount Pietra*, 8,090 feet above the level of the sea. Besides the Carpathians proper, there are the *Little Carpathians*, between the March and Waag; the *Tatra Mountains*, with *Lomnitz Peak*, 8,799 feet; the *Transylvanian Alps*, with *Mount Nagoi*, 8,346 feet; and the *Dinaric Alps*, with *Mount Kom*, 9,000 feet, and *Mount Dinara*, 7,458 feet.

**PLAINS.**—Between the Carpathians and the eastern spurs of the Alps is the large *Plain of Hungary*. The less extensive *Plain of Bohemia* is in the north-western part of the empire.

**RIVERS.**—The principal rivers of Austria-Hungary are the *Danube* and its tributaries, and the *Dniester*, flowing into the Black Sea; the *Etsch* or *Adige*, and the *Sdobbba*, flowing into the Adriatic Sea; the *Oder* and the *Vistula*, flowing into the Baltic; and the *Elbe*, flowing into the North Sea.

1. The **Danube** is the great river of Austria. It flows through the heart of the empire, from west to east; and, with its numerous tributaries, waters more than two-thirds of its whole extent. Of these tributaries the *Inn*, *March*, *Drave*, *Sava*, and *Theiss* are the most considerable. The Danube, although rapid, is navigable throughout Austria for steamers and rafts.

2. The **Elbe** and the **Dniester** have their upper portions within Austria—the former in the province of Bohemia, the latter in Galicia.

3. Only a small portion of the upper courses of the **Oder** and **Vistula** are within the empire. The latter forms part of the boundary between the Russian and Austrian territories.

\* \* \* The largest strictly Austrian or rather Hungarian river is the *Theiss*, which rises in Mount Galatz, in the Carpathians, and, after a generally navigable course of 843 miles, joins the Danube near Peterwardein.

**LAKES.**—Hungary contains the considerable *Lake of Balaton* or *Platten See* (area, 250 square miles), the water of which is slightly salt. The *Neusiedler See* is sometimes dry in summer. *Lake Zirknitz*, the waters of which occasionally disappear, is in the Julian Alps; and *Lakes Garda* and *Como* are on the south-west frontier.

**CLIMATE.**—So extensive and varied a range of country as that which falls within the empire naturally exhibits many differences of climate, soil, and vegetation. The warmest portions of the empire are those lying south of the Alps, towards the coasts of the Adriatic. The Plain of Hungary is distinguished by extremes of heat and cold at the opposite seasons of the year. On the whole, the climate of most part of the country is dry, healthy, and temperate.

**PRODUCTIONS.**—The natural productions of the empire are extremely varied. Every plant indigenous to Europe is found in Hungary alone, and the mineral wealth of the two countries is said to be greater than that of any other European country.

1. The vine thrives in Hungary, and throughout the southern provinces in general. The empire ranks next to France as a *wine-growing* country, yielding annually about five hundred million gallons. The *fig*, *olive*, and *mulberry* are found on the shores of the Adriatic.

2. Austria is rich in *metals* and *minerals*. Both *gold* and *silver* are worked in Hungary and Transylvania. In the Austrian provinces there are rich mines of *lead* and *iron*, “brown” and common *coal*, besides the *quicksilver* mine of Idria (in the province of Carniola, above the head of the Adriatic).

**INHABITANTS.**—The Austro-Hungarian Empire has nearly 42 million inhabitants—a greater population than any other European State, except Russia and Germany—equal to an average of 160 to the square mile, or less than a third of the density in England.

Of these, 23½ millions inhabit the Austrian division of the Empire, but less than 10 millions of them are **Germans**, the remainder consisting of **Czechs** (who form the bulk of the Bohemian population) and other **Slavonic** peoples. Five-and-a-half million Austrian subjects are **Poles**, and nearly half a million speak the **Italian** language. These latter inhabit the southern valleys of the Tyrol.

The remaining 17 millions include the people of Hungary and the adjacent territories, known under the general name of the Hungarian countries. In Hungary itself, the **Magyars**, who now number 8½ millions, form the dominant race; intermixed with them are Slavs, Germans, and Rumanians. One-and-a-half million **Jews** are dispersed throughout the empire. The Hungarian population has risen from 15½ millions in 1880, to 17½ millions in 1891, and the Magyar nationality from 6,170,000 to 8,200,000. The Hungarians amount, therefore, to 54½ per cent. of the entire population, while of the other races settled in Hungary, the most numerous one represents only 15 per cent.

The provinces of Bosnia and the Herzegovina, occupied by Austria in accordance with the Treaty of Berlin, contain about 1½ million inhabitants.

**INDUSTRIES.**—The industrial produce of Austria-Hungary is considerable. There are considerable manufactures, but agriculture is the principal, and in many parts the only, industry.

1. **Agriculture** occupies by much the larger proportion of the people, especially in Hungary and Galicia, which are the principal corn-growing provinces. *Rye* is the staple crop, and forms the principal article of food. Large

quantities of *barley* and *oats* are grown in Galicia. Much *wine* is produced, that of Tokay being specially famed. Vast numbers of sheep and cattle are reared in various parts of the empire.

2. **Manufactures** are mostly pursued in the German provinces, where linen, woollen, and other fabrics are made. Bohemia is celebrated for its glassworks. Still, the empire is not, on the whole, a manufacturing country, and manufactured goods are therefore largely imported.

3. The foreign Commerce<sup>1</sup> of the empire is checked by its limited extent of sea-coast and by the mountain-chains which have to be crossed in order to reach the coast from the interior.

**Ports.**—The ports of *Trieste* and *Fiume* are the chief seats of the foreign trade of the empire—Trieste for the German, and Fiume for the Hungarian, provinces.

**INTERNAL COMMUNICATION.**—The Danube and its tributaries are the great highways of internal trade. There are excellent *high-roads*, over 14,000 miles of *railway*, and well-developed *telegraphic* and *postal* services.

The Austrian Government has, at great expense, constructed good roads across upwards of sixty passes, that leading from Innsbruck over Monte Stelvio to Lombardy being a magnificent road, arched over in some parts to prevent its being blocked by avalanches. Before the construction of railways through the mountainous region which lies between the interior and the sea-coast, inter-communication was necessarily limited. Now, however, railways extend from Vienna to Prague, &c., on the north; Buda-Pesth, &c., on the east; Munich, &c., on the west; and Trieste on the south, besides another line across the Brenner Pass to Lombardy. Buda-Pesth, the capital of Hungary, has direct communication by rail with the port of Fiume, on the Adriatic.

**GOVERNMENT.**—Austria-Hungary is an *hereditary dual monarchy*, the Emperor of Austria being also King of Hungary. The government is dual, the Austrian State and the Hungarian Kingdom each having its own Parliament, Ministry, and Administration.

The empire, as a whole, has no nationality. The ruling power is German in the western provinces, and Hungarian in the eastern division; but the majority of the subjects of both the Austrian and the Hungarian States are of races differing in language, habits, and ideas from the dominant people in each of the two great divisions of the empire, whose rule they more or less reluctantly obey. This division of races is a source of political weakness to the empire, and necessitates the maintenance of a powerful army.

The **Revenue** and **Expenditure** for the "common affairs" of the empire amount to about 11 millions sterling, of which Austria provides seven-tenths, and Hungary three-tenths. The Revenue and Expenditure of Austria amount to about 45 millions sterling each, while the National Income of Hungary is about 29 millions, and the Expenditure nearly the same. The *common Debt* amounts to 235 millions—that of Austria, 88 millions, and that of Hungary 132 millions.

Military service is compulsory in both Austria and Hungary. The Imperial Army numbers nearly 300,000 on the peace footing, and 1,200,000 in time of

1. The total value of the *imports* (1896) was £34,130,000; and *exports*, £51,080,000. Less than a third of the trade is carried on with Turkey, Russia, Italy, France, and Great Britain; the rest being almost entirely with Germany.

war.<sup>1</sup> The *Navy* consists of 160 war vessels (of which 12 are ironclads), manned by upwards of 7,000 men. Pola is the chief naval arsenal.

**EDUCATION.**—Public education throughout the empire was rather backward until recently, and, notwithstanding the efforts of the Government, the great bulk of the agricultural population of the purely Slavonic provinces are as yet almost entirely illiterate. In the Germanic portions of the empire, the law enforces the education of every child between the ages of six and twelve. Numerous higher-class schools and 11 *universities*—of the latter, that of Vienna has over 5,000 students, and that of Buda-Pesth, 3,600.

**RELIGION.**—The *Roman Catholic* religion is followed by three-fourths of the population. *Protestants* are most numerous in Hungary and Transylvania. Many of the people of the Hungarian countries, however, are members of the *Greek Church*.

**DIVISIONS and TOWNS.**—Austria is divided into 14 Provinces, namely, the *Arch-Duchies* of Lower Austria and Upper Austria; the *Duchies* of Salzburg, Styria, Carinthia, Carniola, Silesia, and the Bukowina; the *Kingdoms* of Bohemia, Dalmatia, and Galicia; the *Margraviate* of Moravia; the *Counties* of the Tyrol and Vorarlberg, and the *County* of Görz; the *Margraviate* of Istria and the *City* of Trieste (which together form the *Coastlands District*).

The chief towns in the Austrian Provinces, with their population in thousands, are VIENNA (1,364), in Lower Austria; LINZ (47), in Upper Austria; SALZBURG (28), in the Duchy of Salzburg; GRAZ (113), in Styria; KLAGENFURT (20), in Carinthia; LAIBACH (31), in Carniola; TROPPAU (22), in Silesia; CZERNOWITZ (57), in the Bukowina; PRAGUE (184), in Bohemia; ZARA (25), in Dalmatia; LEMBERG (128), in Galicia; BRÜNN (95), in Moravia; INNSBRUCK (32), in the Tyrol; and TRIESTE (158), in the Coastlands.

VIENNA, the capital of the Empire, stands on the south bank of the Danube. It is among the largest of European capitals, and is a great centre of trade. Linz, in Upper Austria, is also on the Danube. Graz, in Styria, is on the river Mur, an affluent of the Drave. Trieste, situated at the head of the Adriatic, is the principal seaport of Austria, and is connected by rail with Vienna and other towns in the interior. Pola, the chief naval station, is on the coast of Istria, near the southern extremity of the peninsula.

PRAGUE, the capital of Bohemia, comes next to Vienna in size and population, and is a place of much note in history. Prague stands on the river Moldau, which joins the Elbe. Königgrätz, which gives its name to the decisive victory gained over the Austrians by Prussia in 1866, lies on the Upper Elbe, sixty miles east by north of Prague. Brünn, in Moravia, is an important manufacturing town. Not far distant from it is *Austerlitz*, the scene of Napoleon's victory over the Austrians in 1805.

GALICIA lies to the east and north of the Carpathian Mountains, and originally formed part of the independent kingdom of Poland. Lemberg, the capital, is a large city, with considerable trade. Cracow (76), on the

1. A large proportion of the army was formerly obtained from the "Military Frontier." Prussian principle of universal liability to military service has been adopted throughout the empire of Austria-Hungary, but that system has been abolished, and the

Vistula, was formerly the ecclesiastical capital of Poland, and has a magnificent cathedral. Near Cracow are the famous salt mines of Wieliczka. Zara, the chief town in Dalmatia, is on the east coast of the Adriatic, and is a thriving port.

The HUNGARIAN STATE includes Hungary proper, with Transylvania and the town of Fiume, and also the provinces of Croatia and Slavonia, which have separate governments for local affairs.

The chief towns in the Hungarian countries are BUDA-PESTH (506); PRESSBURG (52); SZEGEDIN (87), in Hungary; KLAUSENBURG (32), in Transylvania; and the port of FIUME (29), on the Adriatic.

BUDA-PESTH, which together form the chief city of Hungary, stand on the opposite banks of the Danube. Pesth (on the east bank) is the larger in size, but Buda is the more ancient. They form together a large city, and Pesth is a great seat of trade. Pressburg, higher up the river, was the ancient capital of Hungary during its period of national independence. Fiume is the chief seaport of the Hungarian countries. It lies at the head of an arm of the Adriatic, to the eastward of the Gulf of Trieste, and is connected by rail with Pesth *via* Agram.

BOSNIA and HERZEGOVINA were, in 1878, in accordance with the treaty of Berlin, placed under the direct administration of Austria-Hungary, and are now virtually treated as integral parts of the empire.

These provinces comprise the territory lying between Servia on the east and Dalmatia on the west, the river Save forming the northern boundary. They have an area of about 20,000 square miles, and a population of 1½ millions. The characteristic features of these provinces are their well-wooded mountains and fertile valleys; those of Bosnia being watered by the river Save and its tributaries, and those of the Herzegovina by the Narenta and its affluents.

The largest town is *Bosna-Serai* or *Sarajevo* (26), the capital of Bosnia. *Mostar* (13) is the chief town of the Herzegovina. *Trebinje* and *Travnik* are fortified towns.

The *Sanjak*, or district, and town of *Novi-Bazar* have 15,000 inhabitants, and, although occupied by an Austrian military force, are administered civilly by Turkey.

#### QUESTIONS ON AUSTRIA-HUNGARY.

1. By what countries is Austria-Hungary bounded?

2. What two mountain systems are (one of them partly, the other wholly) within the limits of the empire? Name the highest points in each.

3. What plains are within the limits of the empire?

4. Name the chief rivers of Austria-Hungary, and briefly describe their courses.

5. Which portions of the empire are distinguished by the greater warmth of their climate? Name some of the fruits that belong to these provinces.

6. What descriptions of mineral wealth does the empire contain, and in which of its provinces?

7. What races of people are included in the Austro-Hungarian Empire

8. What branches of industry are most characteristic of the people?

9. Name the chief ports for the foreign commerce of the empire. What are the means of internal communication?

10. What is the form of government, and what the prevailing religion?

11. Name the provinces of the Austrian division of the empire.

12. What portions of the empire are included in the kingdom of Hungary?

13. Which of the Austrian provinces was formerly a part of Poland, and what is its chief city?

14. Say what you know of Vienna, Gratz, Trieste, Prague, Brinn, Buda-Pesth, Pressburg, Fiume, Zara, Cracow, Bosna-Serai, and Mostar.

## DENMARK.

**DENMARK**<sup>1</sup> is a small country in the north-west of Europe. Denmark Proper consists of the northern portion of a peninsula—**Jutland**—and an adjacent group of islands—**Zealand**, **Fünen**, **Laaland**, &c.—lying at the entrance of the Baltic Sea, and the outlying island of **Bornholm** in the Baltic.

**BOUNDARIES.**—The boundaries of Denmark are—on the *north*, the Skager Rack; on the *east*, the Kattegat and the Baltic Sea; on the *west*, the North Sea; and on the *south*, Germany.

**EXTENT.**—The area of Denmark is nearly 14,800 square miles—less than half the area of Scotland, and about one-fourth that of England and Wales. But if we include Iceland and the Faroe Islands, the total area is 54,310 square miles.

**COASTS.**—The coast-line of Denmark is extensive, being nearly 4,000 miles in length, and the position of the country is one favourable to maritime commerce. The three channels of entrance to the Baltic—known as the Sound, and the Great and Little Belts—lie between the Danish islands and the mainland on either side. The *Sound* is between the island of Zealand and the coast of Sweden. The *Great Belt* is between the islands of Zealand and Fünen; and the *Little Belt* between Fünen and the coast of Jutland. Denmark terminates to the north in a point of land, or cape, called the *Skaw*.

Along the west coast of Jutland and in the Kattegat are numerous shoals and sand-banks. The western coasts, regular and unbroken and containing no harbours, contrast strongly with the eastern coast-line, which is penetrated by numerous inlets, the most important of which, the *Lim Fjord*, extends across the entire breadth of the peninsula from the Kattegat to the North Sea.

**ISLANDS.**—A third of Denmark consists of islands, of which *Zealand* (2,600 square miles), *Fünen* (1,250), *Laaland* (462), *Bornholm* (221), and *Falster* (178), are the largest.

**NATURAL FEATURES.**—Denmark is a flat country, often marshy towards the coasts, which in some places require to be protected by dykes, as in Holland. No part of Jutland reaches an elevation of more than 600 feet above the sea-level.

Denmark has no *rivers* of any large size, though small streams are numerous. The principal are the Guden and Veile, which flow into the Kattegat, and the Skive, which falls into the Lim Fjord, all of which are less than 50 miles in length. There are numerous *lakes*, but none of any considerable size. Denmark is generally level and monotonous, but there are several remarkably beautiful and well-wooded tracts, especially in the islands.

**CLIMATE.**—The climate of Denmark is somewhat colder and moister than that of Britain, but it is, on the whole, temperate

1. Denmark, *Dane-March*, the march or frontier of the Danes. The Duchies of Schleswig and Holstein, formerly attached to the Danish crown, were severed from Denmark in 1864.



and healthy. The winters are severe, and occasionally the channels between the islands are frozen over.

**PRODUCTIONS.**—The chief sources of national wealth are found in the rich pastures, and in the fisheries carried on in the adjacent seas. There are few wild animals, and no minerals, except limited quantities of coal, marble, and building-stone in the island of Bornholm. Turf is generally used for fuel.

**INHABITANTS.**—The Danes belong to the Scandinavian family of nations, and in 1890 numbered 2,172,000, an average of 147 per square mile, less than a third of that of England. The Faroe Islands, Iceland, and Greenland have a total population of about 90,000.

Education is compulsory and widely diffused by means of primary and secondary schools under the control of the government. There is one university (at Copenhagen) and several public colleges in the larger towns.

The established religion is the Lutheran, to which 99 per cent. of the people belong, but all sects are tolerated.

**INDUSTRIES.**—The industry of Denmark is chiefly devoted to the soil, and the rearing of cattle, with the culture of the land, employ the greater number of the people. Oxen, with butter and cheese, and other farm and dairy produce, are largely supplied to other countries, and a considerable amount of maritime commerce is thus carried on. The Danes are good sailors, and have always been noted for their devotion to maritime pursuits.

The imports from the United Kingdom to Denmark and the Danish Colonies amount to nearly 3 millions sterling a year, and the exports thereto to nearly 8 millions. COPENHAGEN is the principal port.

Internal communication is facilitated by excellent roads (especially in the islands), about 1,250 miles of railways and several canals. The Lim Fjord, which extends across the country from the Kattegat to the North Sea, throws off several arms, which furnish extensive means of internal communication. The natural channel (formed during the storm of Feb. 3, 1825) connecting the fjord and the sea having become closed with sand, the Thyborøn Canal was cut, but it can only be used by very small vessels.

**GOVERNMENT.**—Denmark forms a hereditary and constitutional monarchy.

The Executive power is vested in the King, who has also an absolute right of veto on measures passed by the Danish Parliament (the Rigsdag), which is composed of two Chambers—the Landsting and the Folksting.

The Revenue and Expenditure each amounts to a little over 3 millions sterling. The National Debt, much of which has been incurred in the construction of the State railways, harbours, and other public works, has been reduced to less than 10 millions sterling. There is a Reserve Fund of about 4½ millions sterling.

The total peace strength of the army is about 16,500 men, and the war strength about 60,000, exclusive of the extra Reserve of about 14,000 officers and men. The navy consists of 30 war vessels, of which 10 are armour-clad ships, manned by about 1,500 men.

**DIVISIONS.**—Denmark is divided into 7 Stifts, 3 of which are on the islands, and 4 in Jutland.

The 3 Stifts on the islands are (1) **Zealand**, which includes the islands of Zealand, Amager, Møen and Samsø; (2) **Fünen**, which includes the islands of Fünen, Langeland and Arrø; (3) **Laaland**, which consists of the islands of Laaland and Falster. The 4 Stifts in Jutland are (1) **Aalborg**, (2) **Viborg**, (3) **Aarhus**, (4) **Ribe**.

The island of **BORNHOLM**, which lies in the Baltic, considerably east of the other islands, belongs to Denmark.

**TOWNS.**—Less than one-third of the Danish people live in the towns, the most populous of which are *Copenhagen*, the capital, *Aarhus*, *Odense*, and *Aalborg*.

**COPENHAGEN**<sup>1</sup> (312, or with suburbs 375), the capital of Denmark, is on the east coast of Zealand. It has extensive docks and great trade, and is strongly fortified.

**Elstnøre** lies about twenty miles north of Copenhagen, at the northern entrance of the Sound. **Roskilde**, an ancient town, the former residence of the Danish Kings, is to the west of the present capital.

None of the towns of Jutland are of very considerable size. **Aalborg** (20) is on the east shore of the Liim Fiord; **Aarhus** (33), on the east coast, is the centre of the railway system of the peninsula.

**Odense** (30) is the chief town in the island of Fünen. **Rønne** is the capital of Bornholm.

**FOREIGN POSSESSIONS.**—Besides Iceland and the Faroe Islands, Denmark has some settlements on the west coast of Greenland (North America), with the islands of Santa Cruz, St. Thomas, and St. John, in the West Indies.

1. The **FAROE ISLANDS**,<sup>2</sup> in the Atlantic Ocean, to the north of the British islands, comprise a group of 35 islands (of which only 17 are inhabited), which rise above the waters of a stormy sea. They have an area of 340 square miles, and over 13,000 inhabitants, of Scandinavian origin, who are chiefly occupied in fishing, or in collecting the feathers and down of the numerous birds which find shelter amidst their cliffs. They contain the small town of *Thorshavn*.

2. **ICELAND** has an estimated area of 40,000 square miles, and is, therefore, next to Great Britain, the largest of European islands. Its northern coasts just touch the borders of the frigid zone. The climate is cold, and the surface generally barren—exhibiting a succession of volcanic mountains and plains covered with lava. Several of the volcanoes<sup>3</sup> are in occasional eruption—amongst them *Mount Hekla*, which is upwards of 5,000 feet high.

1. Copenhagen, or *Kjøbenhavn*, merchant's haven. The harbour is formed by the channel between Copenhagen proper and *Christianshavn* on the adjacent island of Amager.

2. Faroe, from Norse, *far*, sheep; and *oe*, an island.

3. A volcano is a burning mountain—that is, a mountain from which burning matter (as red-hot ashes, stones, and lava) is occasionally thrown forth. The mountain is at such times said to be

in eruption. Of the substances thrown out by volcanoes, lava is the most curious. It is a mineral substance, rendered liquid by the intense heat which exists in the heart of the mountain, but which gradually cools and hardens as it flows down the mountain-side. The summit of a volcano generally has a depression, or hollow, called a crater (from the Greek *crater*, a cup).

The most remarkable feature of Iceland, however, consists in its boiling springs or *geysers*, which are in the south-west corner of the island, near Mount Hekla. The geysers are fountains which at intervals throw up columns of hot water and spray. The largest of them—called the Great Geyser—throws up a column of water to the height of from 50 to 150 feet.

Iceland has over 72,000 inhabitants, who are chiefly employed in rearing cattle and other farm labours. The capital, and indeed only town, is *Reikjavik* (2), on the south-west coast.

#### QUESTIONS ON DENMARK.

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|--|---|
| <p>1. How is Denmark bounded? What is its extent?</p> <p>2. What cape forms the northernmost point of Denmark? What two channels does it adjoin?</p> <p>3. What portions of land do the straits called the Sound, the Great Belt, and the Little Belt respectively divide?</p> <p>4. Describe briefly the natural features and climate of Denmark.</p> <p>5. What are the principal productions?</p> <p>6. In what branches of industry are the Danes chiefly engaged, and what are the means of inland communication?</p> <p>7. Under what form of government is Denmark? In what state is education, and what is the established religion?</p> | <p>8. Name the five political divisions of Denmark, and the chief towns in each.</p> <p>9. On what island is the capital of Denmark situated? What strait does it adjoin?</p> <p>10. What do you know of Elsinore, Aalborg, and Aarhus?</p> <p>11. What foreign possessions belong to Denmark?</p> <p>12. Where are the Faroe Islands? What town do they contain?</p> <p>13. Where is Iceland? What kind of natural features does it exhibit?</p> <p>14. What are the geysers, and where are they situated?</p> <p>15. Name and point out the capital of Iceland.</p> |
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#### SWEDEN AND NORWAY.

SWEDEN<sup>1</sup> AND NORWAY,<sup>2</sup> which are distinct (though adjoining) countries, are under the same sovereign, and form the kingdom of Sweden and Norway. These two countries form a large peninsula, situated in the north-west of Europe, between the Atlantic Ocean and the Baltic Sea. Sweden is the eastern part of the peninsula; Norway its western side. Sweden and Norway are together known as Scandinavia.

**BOUNDARIES.**—The boundaries of Sweden and Norway are—on the *north*, the Arctic Ocean; on the *west*, the Atlantic; on the *south*, the Skager Rack, the Kattegat, and the Baltic; on the *east*, the Baltic Sea, the Gulf of Bothnia, and part of Russia.

**EXTENT.**—In size, Sweden and Norway are little short of 300,000 square miles, or considerably more than five times the area of England and Wales.

The actual *area* of Sweden is estimated at 170,000 square miles, and that of Norway at 123,000 square miles, giving a total of 293,000 square miles. The *greatest length* is about 1,150 miles, and the *greatest breadth* 450 miles. The *mean breadth* of Sweden is about 250 miles. Norway has an average breadth of 200 miles in the south, but only 65 miles in the centre and north.

**COASTS.**—The coasts of both Sweden and Norway are very indented and irregular, those of Norway even more so than is the case with the Swedish shores. The numerous long and narrow arms of the sea which penetrate the coast of Norway are called *fjords*.<sup>3</sup>

1. Sweden, or *Svea Rige*, Sweden's kingdom.  
 2. Norway, or *Nor Rige*, northern kingdom.  
 3. The term *fjord* is peculiar to Scandinavian geography. The fjords of the Norwegian coast

resemble the lochs of the western coast of Scotland. The term *fjord*, however, is restricted to arms of the sea; *loch*, on the other hand, is given to inland lakes as well as to arms of the sea.

Many of the fiords are of great extent, running, in some cases, more than a hundred miles inland. They are bordered on either side by steep and lofty rocks. The total length of the *coast-line* is estimated at 3,400 miles, or 1 mile of coast to every 86 square miles of *area*. The principal features are:—

1. **Capes.**—The *North Cape* (1,200 feet high), on the island of *Mageroe*, is the most northerly headland of Norway, and also of Europe. *Cape Nordkyn* is the most northerly point of the mainland of Europe; and *Cape Falsterbo* forms the south-west extremity of Sweden. The *Naze* is the southernmost point of Norway.

2. **Inlets.**—Of the *fiords* of Norway, the principal are *Varanger Fiord*, on the north; *Trondheim* and *Sogne Fiords*, on the west; and *Christiania Fiord*, on the south. Between the south-west coast of Sweden and the island of *Zealand* is the narrow strait called the *Sound*.

**ISLANDS.**—The *Lofoten*, *Vigten*,<sup>1</sup> and other numerous groups of islands off the west coast of Norway; the islands of *Gothland* and *Oland*, in the *Baltic Sea*, to the east of Sweden.

Between the two southernmost of the *Lofoten* Islands is the famous whirlpool of the *Mälström*, which, however, may be safely crossed in boats, except during severe storms. All the Norwegian islands are generally high and rocky, while those of Sweden are for the most part level and arable.

**SURFACE.**—Norway is a mountainous country, with a very elevated and irregular surface. Sweden is much less elevated, and consists for the most part of extensive plains, with a gradual slope towards the *Baltic*. The whole of Norway is one vast mountain-region, which rises steeply out of the *Atlantic Ocean*. The waters of the ocean penetrate the mountain wall, advancing far inland, and thereby forming the *fiords* already mentioned. The whole of the mountain ranges of Norway and Sweden are frequently referred to under the general name of the **Scandinavian Alps**, and are locally distinguished, from north to south, as the **Kiolen Mountains** (highest point, *Sulitelma*, 6,152 feet); **Dovrefield**,<sup>2</sup> (*Sneehætten*, 7,600 feet); **Ymesfield** (*Galdhöppigen*, 8,546 feet, the highest mountain in Scandinavia); **Sognefield** (*Skagstlöstind*, 8,100 feet); **Hardangerfield** (*Jöklen*, 6,533 feet); and **Gaustafeld** (*Gausta*, 6,174 feet).

**RIVERS.**—Both Sweden and Norway have a vast number of rivers—many of them mountain-torrents, but others expand into considerable streams. Owing to the proximity of the great mountain ranges to the western coasts, those which flow into the *Atlantic* are short and rapid, while those which drain the eastern slope and flow into the *Baltic* are longer, but are frequently interrupted by falls and rapids. Except in the south of Sweden, none of the *Scandinavian* rivers are navigable, but they are, nevertheless, made use of to float the timber, cut in the inland forest regions, to the seaboard.

The two principal rivers of Sweden are the *Dal* and the *Göta*. The *Dal* flows into the *Gulf of Bothnia*; the *Göta* into the *Kattegat*. The largest

1. *Rolf* or *Rollo*, the ancestor of *William the Conqueror*, came from the *Vigten* Islands. | 2. *Field*, or *feld*, a range of mountains.

river of Norway is the Glommen,<sup>1</sup> 400 miles long, which flows into Christiania Fiord, at the head of the Skager Rack.

Other less important rivers are the Tana and the Alten, flowing into the Arctic Ocean; the Sundals and the Bomsdal, flowing into the Atlantic; the Maan and the Drammen, flowing into the Skager Rack; the Tornea, Lulea, Pitea, and Umea, flowing into the Gulf of Bothnia.

Waterfalls are numerous and most picturesque. The most noted are the Riukan Foss<sup>2</sup> (2,000 feet), on the river Maan, one of the finest in Europe; Mörk Foss (1,040 feet), one of the loftiest falls in Europe; the Vöring Foss (800 feet); and the Trolhatta, on the Göta.

**LAKES.**—Lakes are numerous in both countries. The largest in Sweden are Wener (area, 2,136 square miles), the third largest lake in Europe, Wetter (840 square miles), and Mälar (700 square miles). The largest in Norway is Lake Mjösen (300 square miles).

In Norway alone the lakes are estimated to number 30,000, while in Sweden they cover nearly a tenth part of the total area of the country. All the great lakes form an excellent means of inland communication, which is greatly extended by means of canals. Thus there is through communication between Göteborg on the Kattegat and Soderköping on the Baltic by means of the river Göta, the Trolhatta Canal, Lake Wener, the Göta Canal, and Lake Wetter.

**CLIMATE.**—Sweden and Norway have a climate which is considerably colder than that of England, owing to their higher latitude. But the air in both countries is generally dry and healthy, and the winters, though long, are less severe than in similar latitudes elsewhere. This is especially the case with Norway. The winter is seven or eight months long in the north, but the summer, though short, is, especially on the western coast districts of Norway, very hot and dry. More rain falls in Norway than in Sweden, but the climate is on the whole salubrious.<sup>3</sup>

**PRODUCTIONS.**—The most valuable among the natural productions of Scandinavia are found in its mines, its forests, and its fisheries. Copper and iron are abundant in both countries. The extensive forests furnish an inexhaustible supply of timber (chiefly pine, or wood properly known as deal), which is largely exported to other nations. The fisheries among the Lofoten Islands and upon the Baltic coasts are an important source of national wealth.

Among the wild animals are the bear, wolf, fox, lynx, and lemming,<sup>4</sup> while the most remarkable domestic animal is the reindeer. Among the wild birds are the eagle, hawk, ptarmigan, and eider duck.

**INHABITANTS.**—Sweden and Norway are thinly-peopled countries—necessarily so, from the vast extent of their mountains and forests, and the severity of the climate towards their northern

1. The Glommen waters the Gudbrandsdal, the longest of the Norwegian valleys. This valley is 180 miles long, but nowhere more than 7 miles broad.

2. Foss, waterfall.

3. The mean annual rainfall on the west coast of Norway is 72 inches, but at Upsala, in Sweden, only 16 inches. Bergen is one of the wettest

places in Europe, the mean rainfall being 82 inches, or nearly four times that of Paris, and more than five times that of St. Petersburg.

4. A species of field-rat which occasionally appears in Norway in vast swarms, and which are almost as destructive to the crops as the locusts of tropical lands.

limits. Norway, which consists almost wholly of mountains, is the least populous among the countries of Europe. It is only the shores of the *fjords* that are capable of habitation, and it is in such localities that the few towns are uniformly situated.<sup>1</sup>

The population of Sweden numbers upwards of 4½ millions, and that of Norway nearly 2 millions. The average density in Norway is only 14, and in Sweden but 23 persons per square mile. The people are, with the exception of a few Laplanders and Finns, of the *Teutonic race*, and both the Norse and Swedish tongues are mere dialects of essentially the same language.

**INDUSTRIES.**—It is only in the south of Sweden that *agriculture* is much pursued. But the people of both countries are expert seamen, and a great deal of maritime *commerce* is carried on.

Iron and copper, timber, and the produce (dried and salted, for consumption by other nations) of the *fisheries*, give the industrious Swedes and Norwegians a place in the general markets of the world. They export these things in return for the luxuries and various native produce of other lands.

In Norway, *fishing* (chiefly for *cod* and *herring*) is the principal industry, but in Sweden, about half the people depend upon *agriculture* for their support, about 230,000 being owners of the land they cultivate.

The extreme north of Sweden and Norway is inhabited by the *Laplanders*, a people of pastoral habits, whose sole wealth consists in their herds of *reindeer*.

The total imports of *Sweden* amount to about 18 millions sterling a year, and the exports to 15½ millions. The imports of *Norway* amount to 10½ millions, and the exports to 7½ millions.<sup>2</sup>

The principal Ports are STOCKHOLM, GOTHENBURG or GÖTEBORG, MALMÖ, CARLSORONA, and NORRKÖPING, in *Sweden*; CHRISTIANIA, BERGEN, DRAMMEN, and TRONDHEIM, in *Norway*.

There are few good roads in either country in comparison to their extent, but nearly 6,000 miles of *railways* (5,000 miles in Sweden, and 1,000 miles in Norway) are open for traffic, and numerous steamboats ply on the navigable rivers and lakes and along the coast.

The Göta Canal, in Sweden, completes the partly natural water-communication between the North Sea and the Baltic by the River Göta and Lakes Wenner and Wetter. To avoid the *Falls of Trohätta* an artificial channel, nearly a mile long, has been cut in the solid rock.

**GOVERNMENT.**—Sweden and Norway are two absolutely independent kingdoms under the same sovereign.<sup>3</sup> The Legislative Assembly, or *Storting*, of Norway has, however, greater power than the Parliament, or *Diet*, of Sweden.

The annual *Revenue* of Sweden amounts to about 5 millions sterling, and that of Norway to about 2½ millions. The *Expenditure* of each country is about the same as the *Revenue*. The *Public Debt* of Sweden, contracted entirely for railways, amounts to 14½ millions, and that of Norway to 6½ millions, incurred chiefly in the construction of railways.

1. It was from the bleak and rocky coasts of Norway that the terrible *Vikings* came, who for centuries desolated the maritime countries of western Europe.

2. The annual trade of Sweden and Norway with the United Kingdom amounts to about 18 millions sterling—the imports from Sweden (principally wood and timber, butter, iron, and steel) amounting to 7 millions, and the exports thereto to 5 millions, while our imports from Norway (chiefly timber, fish, and furs) amount to 2½ millions, and our exports to about 2½ millions.

3. Previous to the year 1814, Norway formed

part of the Danish kingdom, but by the Treaty of Kiel (January 14, 1814) the Danish king ceded Norway to the King of Sweden. The Norwegians, however, would not ratify this arrangement, and elected Prince Frederick of Denmark as their king. The prompt entry of Swedish troops, and the refusal of the European powers to acknowledge the newly-elected king, forced the Norwegians to conclude a convention with Sweden, by which the crowns of the two kingdoms were united.—Norway still retaining a separate government, constitution, and code of laws.

The Norwegian **Army** numbers about 40,000 men, and that of Sweden, including the *militia* and *volunteers*, upwards of 350,000 men. The united **Navy** consists of 370 vessels, manned by 7,000 men.

**Education.**—Education is free and compulsory, all children between seven and fourteen being bound to attend at the public schools. Public education is especially well advanced in Sweden.<sup>1</sup> There are excellent superior schools and colleges in most of the towns, and also three *universities*—those of Upsala and Lund in Sweden, and that of Christiania in Norway.

**Religion.**—In religion, the people of both countries, with the exception of about 24,000 Dissenters, are *Lutherans*, or members of the Reformed Protestant Church.

**COLONIES.**—Sweden has had no colonies since the island of St. Bartholomew, in the West Indies, was sold to France.

**DIVISIONS and TOWNS.**—Sweden embraces three great divisions, called Sweden Proper, Gothland, and Nordland. These are further divided into 24 governments or *Läns*. Norway also forms three great divisions—Sondenfields, Nordenfields, and Nordlandens, which are subdivided into 20 Provinces or *Amts*. The principal towns in each division are shown in the following table :—

IN SWEDEN.		IN NORWAY.	
Divisions.	Towns.	Divisions.	Towns.
Sweden Proper,	Stockholm, Upsala	Sondenfields, .	Christiania.
Gothland, .	Göteborg, Carlscrona, Malmö.	Nordenfields, .	Bergen, Trondheim.
Nordland, .	Sundsval.	Nordlandens, .	Tromsø, Hammerfest.

**STOCKHOLM** (246) is the capital of Sweden, and the seat of general government for the two countries. It occupies a highly-picturesque situation at the entrance of the Lake Mäelar, near the coast of the Baltic.

Upsala (22), one of the most ancient of Swedish cities and the seat of a famous university, is to the north-west of the capital. Carlscrona (21), on the south coast, is the naval arsenal of the kingdom. Göteborg or Gothenburg (105), at the outlet of the river Göta into the Kattegat, is the second city in Sweden in population and commercial importance.

**CHRISTIANIA** (150), the capital of Norway, lies at the head of a long fiord called by its name, and has an important university founded by the Danish Government in 1811.

Bergen (54), on the west coast, is the second place in point of size, and is a great station for the Norwegian fisheries. Trondheim (25), further to

1. Among the recruits of 1886, only 0·1 per cent. were totally uneducated, and only 1·7 per cent. were unable to write.

2. Stockholm, "the Isle of Pines." Stockholm

is partly built on islands, and is hence called the "Venice of the North."

3. Christiania, founded by Christian IV., hence its name.

the northward, is an ancient city, the former capital of the country. Tromsø (6) is the most important of the northern ports. Hammerfest, only a short way from the North Cape, possesses the distinction of being the most northerly town in Europe.

### QUESTIONS ON SWEDEN AND NORWAY.

1. In what part of Europe are Sweden and Norway situated? Give their boundaries and extent.
2. By what are the coasts of Norway distinguished?
3. What are the extreme north and south points of Norway?
4. What islands belong to Norway and Sweden?
5. Compare briefly the two countries as to their relief or surface.
6. Name the principal sections of the Scandinavian Alps, and give the elevation of their culminating points.
7. Name the principal rivers of Sweden and Norway, with the seas into which they flow.
8. Mention the principal lakes of Sweden and Norway.
9. Describe briefly the climate of Sweden and Norway. What is the length of the winter in the north of Norway?
10. What natural productions of value do Sweden and Norway possess?
11. State what you know of the inhabitants of Sweden and Norway.
12. What are the chief industrial pursuits of the Norwegians and Swedes?
13. In what does their commerce chiefly consist?
14. What is a marked feature in the internal communication in the south of Sweden?
15. What is the form of government, and what the national religion, in Sweden and Norway?
16. Name the three divisions of Sweden, with the principal towns of each.
17. What city forms the capital of Sweden, and how is it situated?
18. Point on the map to the chief city of Norway. At the head of what inlet does it stand?
19. Where are the following places?—Upsala, Carlscrona, Göteborg, Bergen, Trondheim, Tromsø, and Hammerfest?

### RUSSIA.

RUSSIA is a country of eastern Europe. It is of vast extent, embracing more than half the European continent.

**BOUNDARIES.**—Russia is bounded on the *north* by the Arctic Ocean; on the *west* by the Baltic Sea, Prussia, and Austria; on the *south* by Roumania, the Black and Caspian Seas, and Caucasia; on the *east* by Siberia and Russian Central Asia.

**EXTENT.**—In size, Russia includes upwards of 2,000,000 square miles—more than 35 times the area of England and Wales. In distance from north to south it measures upwards of 2,300 miles, and about 1,800 miles in the direction of east and west.

The Russian Empire has never been actually surveyed, but its area is officially estimated at 8,644,100 square miles, of which 2,095,504 square miles are in Europe.

**COASTS.**—Russia possesses a coast-line upon four inland seas, the Baltic, Black, Caspian, and White Seas, besides part of the shores of the Arctic Ocean. The high latitude (and consequently cold climate) of the White Sea and adjoining ocean limits their navigation to a short period of each year, during which alone they are free from ice. The same thing is the case, during some months annually, with the Baltic Sea.<sup>1</sup> Both the Baltic and the Black Seas are nearly land-enclosed, only communicating with the ocean by narrow straits,

1. The Baltic coasts are covered with ice for about five months in the year, and the Arctic coasts are similarly closed for about eight or nine months.



which are in the keeping of other nations. The Caspian is merely a vast lake, without an outlet.

The peninsula of the Crimea indents the shores of the Black Sea, and is connected with the mainland by the Isthmus of Perekop. The *Sea of Azov* (13,000 square miles) is an arm of the Black Sea, from which it is entered through the Strait of Kertch or Yenikale. The *Gulf of Finland* is an arm of the Baltic, and is 280 miles long, and from 25 to 90 miles broad.

The total length of coast-line is estimated at 5,500 miles,<sup>1</sup> of which 2,500 miles belong to the Arctic Ocean, and 1,000 to the Baltic.

**ISLANDS.**—*Vaigatz*, *Nova Zembla*,<sup>2</sup> and *Spitzbergen*,<sup>3</sup> in the Arctic Ocean; *Aland*, *Dago*, and *Æsel*, in the Baltic; and several small islands in the Caspian Sea.

None of the islands of the Arctic Ocean are permanently inhabited, except *Vaigatz*, which is occupied by a few Samoyedes, but they are nevertheless valuable as hunting and fishing stations. The *Nova Zembla* group lies north of *Vaigatz*, from which it is separated by the Strait of Kara. A remarkably deep inlet, called the *Matyushin Shar*, extends right across the main island. *Spitzbergen* is the name of a group of islands in the Arctic Ocean, between 76° and 81° N. lat., and 11° and 23° E. long., all of which are more or less mountainous, and for the most part covered with enormous glaciers and snow-drifts. Both *Spitzbergen* and *Nova Zembla* have acquired additional interest in connection with the expeditions to the Polar Seas—the latter more especially in connection with the discovery of the North-East Passage by Professor Nordenskiöld. The *Aland Islands* are important from their position near the entrance of the Gulfs of Bothnia and Finland, but the principal fortress, *Bomarsund*, was destroyed by the combined English and French fleets in 1854.

**SURFACE.**—Russia exhibits a succession of immense and nearly level plains, which slope gradually towards the Baltic, Black, Caspian, and White Seas. The most perfectly level of these plains are in the south-easterly division of the country, where they are called *Steppes*. The steppe is an open plain, without trees, and generally without any perennial streams. Its surface, during the dry season of the year (the period of summer and autumn), is parched, arid, and often sandy, the vegetation burned up by the intense heat; but at other times it exhibits a luxuriant expanse of grass, on which the inhabitants pasture immense herds of horses and cattle. The lowest portions of the steppe-land are towards the Caspian Sea, where the soil is often impregnated with saline particles, and salt-water lakes are of frequent occurrence.

**MOUNTAINS.**—The only mountains belonging to European Russia are the *Urals* on the eastern, and the *Caucasus* on part of the southern, border-line, and the *Valdai Hills* in the centre.

1. The *Ural Mountains* extend for 1,200 miles, from the shores of the Sea of Kara on the north, to the river Ural, near Orenburg, on the south. The main chain is flanked on either side by parallel minor ranges, which are less numerous and closer together in the north than in the south, where the

1. Or 1 mile of coast to every 480 square miles of area.

2. *Nova Zembla*, new land.

3. *Spitzbergen*, peaked mountains. Some

assert that the archipelago of *Spitzbergen* was discovered by Sir Hugh Willoughby in 1583, others say that Barents discovered it in 1596.

entire width is upwards of 100 miles. The average height is between 2,000 and 2,500 feet, but the highest point, *Toll Pass*, attains an elevation of 5,540 feet.

2. The chain of the **Caucasus** (700 miles long), between the Black Sea and the Caspian, has an average elevation of from 8,000 to 9,000 feet, and culminates in *Mount Elburs* (18,571). The height of the *snow-line* varies from 9,600 to 12,000 feet, while the limit of vegetation is about 9,000 feet. Of the few *passes* the principal is that of *Dariel*, on the eastern side of *Mount Kasbek*.

3. The **Valdai Hills**, although their mean height does not exceed 1,000 feet, are yet important as forming the great water-parting of Russia. They contain the sources of the *Dwina* and *Volga*. The *Volga* rises at a point only 633 feet above the level of the *Caspian Sea*, into which it flows.

**RIVERS.**—The rivers of Russia are naturally divisible into four sections, according to the maritime basins they belong to. From the central watershed the country slopes north towards the Arctic Ocean, west towards the Baltic, south towards the Black Sea and Sea of Azov, and south-east towards the Caspian.

The following are the principal rivers :—

- (1.) *Flowing into the Baltic Sea*, the *Neva*, *Southern Dwina*, *Niemen*, and *Vistula*.
- (2.) *Flowing into the Black Sea*, the *Dniester*, *Dnieper*, and *Kuban*.
- (3.) *Flowing into the Sea of Azov*, the *Don*.
- (4.) *Flowing into the Caspian Sea*, the *Volga* and the *Ural*.
- (5.) *Flowing into the White Sea*, the *Northern Dwina* and the *Onega*.
- (6.) *Flowing into the Arctic Ocean*, the *Petchora*.

1. The *Neva* (40 miles long) has *St. Petersburg*, the capital of the Russian Empire, at its mouth, and is the outlet for the great lakes. It is connected by canals with the *Volga*, and is frozen over for five months of the year.

2. The *Southern Dwina* and the *Niemen* have each a navigable course of about 500 miles. Part of the lower course of the *Niemen* is in Prussia.

3. Only the "middle" course of the *Vistula* is within Russia.

4. The *Dniester* (700 miles) and *Dnieper* (1,200 miles) are navigable throughout the greater part of their courses.

5. The *Don* (1,100 miles) is navigable during only a part of the year.

6. The *Volga* (2,200 miles) is the longest of European rivers.<sup>1</sup> It rises in the *Valdai Hills*, and enters the *Caspian* by numerous mouths, draining with its tributaries (the *Oka*, *Kama*, *Moskva*, &c.) nearly a seventh of Europe. During the winter it is frozen over, but in summer it is extensively navigated. The *Volga* is connected by canals with the *Dwina*, *Neva*, &c.

7. The *Ural* (which forms one of the natural boundaries between Europe and Asia) has a course of 1,150 miles, and is navigable for small vessels.

8. The *Petchora* (900 miles), which rises in the *Ural Mountains*, is the only large European river that falls *directly* into the Arctic Ocean.

9. The *Northern Dwina* has a navigable course of upwards of 700 miles, and is connected by canals with the *Neva* and the *Volga*. At its mouth is the port of *Archangel*.

**LAKES.**—The two largest are *Ladoga* and *Onega*; next are *Saima*, *Peipus*, *Enara*, *Bieloe*, and *Ilmen*. All of these are in the north-western part of the country, most of them situated near the *Baltic Sea*. There are some shallow salt-water lakes in the *Steppes*—the largest of them is *Lake Elton*, situated east of the *Volga*.

<sup>1</sup> The *Volga* is thus ten times longer than the Thames, and rather more than nine and a half times longer than the *Shannon*—the longest river in the British Islands.

**Lake Ladoga** (6,330 square miles) is the largest lake in Europe. It is drained by the Neva, and connected with **Lake Onega** (3,230 square miles) by the Svir. Both are shallow, and their navigation is further impeded by rocks and quicksands. **Lake Peipus** (or *Tchouds Kos*) has an area of 1,250 square miles, and is drained by the Narva. **Lake Saima** is extremely irregular, and is by far the largest sheet of water in Finland, its area being probably 2,000 square miles. **Elton** is the saltiest lake in Europe, and yields yearly above 100,000 tons of salt.

**CLIMATE.**—Russia has great variety of climate, owing to its extensive range of latitude.<sup>1</sup> Its northern part is cold compared with the climate of England, but towards the south it becomes warmer. The Russian winters are very long and severe, while the summers are intensely hot. These extremes of heat and cold are experienced throughout Russia, but more so within the steppe-region than elsewhere.

The severity of Russian winters may be inferred from the fact that most of the rivers are for several months covered with ice of great thickness. The White Sea in the north is always, and the Sea of Azov in the south occasionally, frozen over in winter.

**PRODUCTIONS.**—The forests, which still cover more than one-third of Russia, furnish some of its most valuable productions—*timber, tar, pitch, turpentine, and potash*. Its mines of *iron and platinum*, within the district of the Ural, are also of high value. *Copper, salt, marble, coal, and gold* are also found.

The reindeer and polar bear are found in the north, the common bear, wolf, &c., in the large forests. Vast numbers of fur-bearing animals (beaver, sable, fox, ermine) are caught. Seals are obtained from the Arctic and Caspian Seas. The sturgeon is found in all the larger rivers.

**INHABITANTS.**—Russia is very thinly peopled, considering its vast size, though the total number of its population is large. Including Finland and Poland, this vast country contains nearly 96 millions of people, an average of only 48 to the square mile, or less than a tenth of the density in England.

**Race.**—More than five-sixths of the entire population belong to the *Slavonic* race, but in the north there are three millions of Finns, Lapps, and Samoyedes, and in the south-east nearly the same number of Tartars. Jews are numerous, especially in the western and south-western provinces, but vast numbers of them have been driven out by the harsh and severe measures put in force against them in 1891.

**Language.**—The majority of the people speak the Russian language, of which there are three principal dialects—pure Russian being spoken only in the central provinces. Polish, Lettish, and the various Finno-Tartar languages are also spoken.

**INDUSTRIES.**—The vast majority of the people are engaged in *agriculture*, for Russia is principally a corn-growing country. The central and southern portions of its great plains, with the exception of the steppe-region, are annually covered with crops of the finest wheat. Rye and other grains, and also hemp and flax, are very largely grown. Vast numbers of cattle are reared on the Steppes.

The metal-works carried on within the valleys of the Ural display a high degree of manufacturing skill. But Russia is not, upon the whole, a manu-

1. From 40° to 70° N. lat.

facturing country. It has a great deal of foreign *commerce*, exporting corn, hemp, tallow, hides, and bristles; with timber, potash, and other productions of its vast forests.

The annual value of the *imports* is about 38 millions sterling, and of the *exports* 70 millions. Much of the inland trade is carried on at fairs. At the annual fair of Nijni Novgorod goods to the value of about eight millions sterling are sold. The commercial navy of Russia consists of nearly 5,000 vessels. About half the foreign trade of the empire is centred at St. Petersburg, and is mainly carried on with Great Britain and Germany.

**Ports.**—The chief ports are St. Petersburg, Riga, and Revel, on the Baltic; Archangel, on the White Sea; Astrakhan, on the Volga; and Odessa, on the Black Sea.

**Internal Communication.**—Excellent highroads, but few good cross-roads; extensive inland water-communication by *navigable rivers and canals*; and nearly 19,000 miles of *railway*.

The rivers of Russia intersect the country in every direction, and are connected together by an extensive network of canals. Thus goods from St. Petersburg are rapidly and easily conveyed by water to Archangel or Astrakhan, or to the Black Sea ports, and *vice versa*. In winter the frozen rivers and lakes are admirably adapted for sleigh-travelling.

**GOVERNMENT.**—Russia is an absolute monarchy, the sovereign bearing the title of *Csar* or *Emperor*. An immense standing army is maintained in Russia, and everything is regulated according to the rules of military discipline.<sup>1</sup>

The annual *Revenue* of the empire is about 90 millions sterling, and there was a surplus over *Expenditure* in 1889 of about 6 millions sterling. The entire *Public Debt* amounts to about 740 millions sterling, on which there is an annual charge of over 40 millions.

**Military service** is compulsory for all men from their 21st year. The regular *Army* and *Reserves* number 800,000 men on the peace footing, and over 2 millions on the war footing, exclusive of the irregular troops, mainly composed of Don Cossacks. The *Navy* consists of 270 vessels, of which 44 are *ironclads* and 140 *torpedo-boats*.

**Education.**—Very backward, except in Finland, where education is all but universal. In Russia proper, only 20 per cent. of the recruits for the army can read and write. There are numerous military, naval, and mining schools, endowed by Government, and six universities—viz, at Dorpat, Moscow, Petersburg, Kazan, Kiev, and Kharkov.

**Religion.**—In religion, the majority of the people of Russia are followers of the *Greek Church*. There are 9 million Roman Catholics, 5 million Protestants, 3½ million Jews, and 2½ million Mohammedans.

**DIVISIONS and TOWNS.**—Russia is divided, for administrative purposes, into governments and districts, which are generally

1. Previous to the year 1861, the great mass of the people were *serfs*, in a social condition but little superior to absolute slavery, and rated as the property of their owners, like so many head of cattle. Serfdom, however, was abolished by

the Emperor Alexander II. (who was assassinated in St. Petersburg on March 13, 1881), and great improvement in the general condition of the Russian peasantry has ensued.

grouped under eight great divisions.<sup>1</sup> Four of the Russian 'governments' are called, from their situation, the *Baltic Provinces*. *Finland* is divided into eight districts. Nineteen governments, lying within the central portion of the empire, are distinguished as *Great Russia*; four (in the south-west, towards the river Dneiper) as *Little Russia*. Eight governments are known as *West Russia*, and ten as *Poland*—these embrace territories which formerly belonged to the kingdom of Poland. Six of the governments are known as *South Russia*, and ten as *East Russia*. The principal towns in each of the great divisions of Russia are shown in the following table:—

Divisions.	Chief Towns.	Divisions.	Chief Towns.
<b>Baltic Provinces,</b>	St. Petersburg, Cronstadt, Riga, Revel.	<b>Little Russia,</b>	Kiev, Kharkoff, Poltava.
<b>Finland,</b>	Helsingfors, Abo.	<b>West Russia,</b>	Vilna, Minak.
<b>Great Russia,</b>	Moscow, Tula, Nijni-Novgorod, Tver, Smolensk, Archangel.	<b>Russian Poland</b>	Warsaw, Lodz.
		<b>South Russia,</b>	Odessa, Kishineff, Nikolaiev, Kherson, Taganrog, Rostov.
		<b>East Russia,</b>	Kazan, Saratov, Astrakhan, Samara, Orenburg, Perm.

*Great Russia* (Muscovy) gained its independence under Joan Baselowitz in 1479; *East Russia* (Kazan) was annexed in 1550-80; *Little Russia* (Ukraine) in 1686; the *Baltic Provinces* in 1700-10; *South Russia* (New Russia) in 1791; *West Russia* (Polish Russia) in 1795; the Grand Duchy of *Finland* was formerly a part of the Swedish monarchy, and only became attached to Russia in 1809. *Poland* was long a distinct and powerful kingdom. The territory to which the title of "Poland" is now given has been, since 1831, a Russian province, and embraces only a small part of the country formerly known by that name, the other portions having been annexed by Prussia and Austria. By the Treaty of Berlin (1878), which closed the Russo-Turkish war, the district of *Bessarabia*, east of the Pruth, was restored to Russia.

**ST. PETERSBURG**, the capital of the Russian Empire, stands beside the mouth of the river Neva, at the head of the Gulf of Finland. It has 900,000 inhabitants in summer and over a million in winter, and thus ranks high among European capitals in order of population. St. Petersburg is a splendid city, of modern origin, having been founded by Peter the Great in 1702.

Cronstadt (48), the port and naval arsenal of St. Petersburg, is on an island in the Gulf of Finland, a few miles to the west of the capital. Riga (196), at the outlet of the river Dwina into the Gulf of Riga (an arm of the Baltic), is an important seaport, one of the chief seats of Russian commerce. Revel (51), at the entrance of the Gulf of Finland, is also a port of some note. Helsingfors (58), on the north side of the gulf, is the provincial capital of Finland. It is defended by the fortified works of Sveaborg, which occupy several small islands in front of the port.

1. *Caucasia*, which is politically divided into *Old-Caucasia* and *Trans-Caucasia*, is by some geographers treated as part of European Russia, but it properly belongs to Asia, and is therefore described under "Asiatic Russia."

The ancient city of **MOSCOW** (753), in the heart of Russia, was long the capital of the empire, and is still the favourite object of Russian regard. Moscow stands on the river Moskva, an affluent of the Oka, which latter river joins the Volga. About sixty miles west of Moscow is the village of **Borodino**, the scene of a sanguinary engagement between the French and Russian armies in 1812.

**Nijni-Novgorod** (67), at the junction of the Oka and Volga, is an important seat of inland trade, distinguished by its great annual fair, the gathering-place of traders from nearly every nation of Europe and Asia. **Archangel** (30), near the mouth of the Northern Dwina, is the chief port for the commerce of the White Sea; but its harbour is only free from ice during three months of each year. **Kiev** (184), on the river Dnieper, is an ancient city, the seat of considerable trade. **Warsaw** (465), on the river Vistula, was the capital of the Polish monarchy, and is still a large city, though fallen from its former greatness. **Odessa** (304), on the Black Sea, is the chief seaport of southern Russia, and has a vast trade, chiefly in the export of corn. **Nikolaiev** (67), further to the east, at the mouth of the Bug (above its junction with the Dnieper), is a naval station, the "Portsmouth" of the Black Sea. **Sebastopol** (34), which has been re-fortified, is on the western shore of the Crimea. **Kertoh** is a seaport on the east coast of the Crimea, beside the strait which leads into the Sea of Azov. **Kazan** (133), in eastern Russia, is a large city to the east of the Volga, and is the centre of the trade with the Siberian provinces. **Saratov** (123) is on the west bank of the river. **Astrakhan** (74), the chief port for the commerce of the Caspian, is on the Volga, nearly 50 miles above its mouth.

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#### QUESTIONS ON RUSSIA.

1. Name the boundaries of Russia, pointing to them on the map.
  2. In point of size, what proportion does Russia bear to England and Wales? What are its dimensions from north to south?
  3. What seas adjoin the coast-line of Russia? In what way are they connected with the ocean?
  4. What are the general features of Russia as to its surface?
  5. Describe briefly the principal mountains of Russia.
  6. Name the principal rivers of Russia, with the seas into which they flow.
  7. Mention the chief lakes.
  8. By what is the climate of Russia distinguished?
  9. What articles of utility are derived from the extensive forests of Russia?
  10. In what part of Russia is mineral produce abundant?
  11. To what number does the total population of Russia amount?
  12. What industrial pursuits employ the greater number of the Russian population?
  13. What articles of commercial produce does Russia export?
  14. What form of government has Russia, and what is the national religion?
  15. Into how many governments is Russia divided?
  16. Name the eight great divisions of Russia.
  17. On what river does the capital of Russia stand? Who founded it?
  18. What city was the ancient capital of the Russian Empire? On what river is it?
  19. In what part of Russia are Helisingfors, Nijni-Novgorod, Kiev, Odessa, Nikolaiev, and Sebastopol?
  20. On what rivers are Riga, Kiev, Warsaw, Archangel, and Astrakhan?
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## TURKEY IN EUROPE.

**TURKEY** is a large country in south-eastern Europe, and was formerly much more extensive than at present. Before 1878, it included the, at present, independent States of Roumania, to the north, and Servia, to the south, of the Danube. The present kingdom of Greece was a province of the Turkish Empire from the commencement of the 16th century till 1830.

**BOUNDARIES.**—Turkey in Europe is bounded on the *north* by Austria, Servia, and Roumania; on the *west*, by the Adriatic Sea and the Mediterranean; on the *south*, by Greece, the *Ægean* Sea, and the Sea of Marmora; and on the *east*, by the Black Sea.

**EXTENT.**—The *area* of European Turkey is estimated at 125,289 square miles, or more than twice the size of England and Wales. Only half of this area is now directly under Turkish rule.

**COASTS.**—The total length of *coast-line* is estimated at 1,500 miles, equal to an average of 1 mile of coast to every 83 square miles of area. The principal features are:—

1. **Capes.**—Kaliakra and Emineh on the east, Monte Santo on the south, and Linguetta, or Glossa, on the west.
2. **Inlets.**—The Gulf of Burgas on the east; Gulfs of Contessa, Monte Santo, Kassandra, Salonica, and Volo, on the south; and the Gulf of Arts on the west.
3. **Straits.**—The Strait of Constantinople, leading from the Sea of Marmora to the Black Sea; the Dardanelles, connecting the *Ægean* Sea with the Sea of Marmora; and the Strait of Otranto, joining the Ionian and Adriatic Seas.

**ISLANDS.**—The islands of the Archipelago belong, for the most part, to the Kingdom of Greece; but those that lie near its northern and eastern shores are Turkish. The large island of Candia or Crete, to the south of the Archipelago, belongs to Turkey.

Crete or Candia is, after Cyprus, the largest island in the eastern Mediterranean, and has an area of about 3,000 square miles. Though mountainous, its soil is naturally fertile; the valleys producing olive oil, wine, oranges, &c., while the hill-sides are covered with magnificent forests, in which numbers of wolves, wild boars, and other animals are found. The inhabitants number upwards of 200,000, nearly all Greeks. The chief towns are *Candia* (the capital), *Retima*, and *Canea*.<sup>1</sup> *Suda Bay*, near Canea, is a naval station.

Off the south coast of Roumelia is the island of *Thaso*, 85 square miles in area. The other Turkish islands of the Archipelago geographically belong to, and are described under, Asiatic Turkey.

**MOUNTAINS.**—The country generally is mountainous, though there are some level districts of large extent. Of the mountains, the chief are the Balkans, the Dinaric Alps, and the Pindus Range.

1. The **Balkan Mountains** stretch across the centre of Turkey, in the direction of east and west. The average height of the main range is from 2,000 to 3,000 feet, but it attains in *Koja Balkan*, west of the now famous Shipka Pass, an elevation of 5,900 feet. From the principal chain four minor ranges are given off—one to the north, extending to the bank of the Danube at the "Iron Gate;" another south-east, between the Kara-su and the Maritza,

1. The harbours of Kalos Limenas and Lutro on the south coast are the *Fæst Havens* and

*Phœnies* of St. Paul's journey to Rome (*Acts* xvii. 8, 13).

2. **Balkan** (Turkish), meaning high "ridge."

known as the *Despoto Dagh*<sup>1</sup> or *Rhodope Mountains*; a third, the *Little Balkans*, extending from the main range, fifty miles west of Burgas, to the neighbourhood of Constantinople; while the fourth trends due west to the lofty group of the *Skhar Dagh*, the culminating point of which is upwards of 10,000 feet above the sea.

2. The *Dinaric Alps* (which are an outlying portion of the great mountain-system of the Alps) extend along the shores of the Adriatic. They become united to the western extremity of the Balkan system in the group of the *Skhar Dagh*, already mentioned.

3. The *Pindus Range* branches off to the south from the *Skhar Dagh*, and extends in that direction into Greece—forming a sort of backbone to the peninsular portion of Turkey, and dividing the waters of its eastern and western seas. This range, between Albania and Thessaly, is 9,000 feet high, but the famous *Mount Olympus* (the classic seat of the gods of Greek mythology), near the western shore of the Gulf of Salonica, attains an elevation of 9,700 feet.

**Plains.**—Bulgaria, to the north of the Balkans, forms part of the large Plain of the Lower Danube; south of the Balkans is the Plain of Adrianople, drained by the *Maritza*. The Plain of Thessaly, east of the Pindus Range, is drained by the *Salembria*, which is almost entirely within Greece.

**RIVERS.**—The principal rivers of European Turkey are the *Danube*, flowing into the Black Sea; the *Maritza*, *Kara-su*, *Struma*, and *Vardar*, flowing into the *Ægean Sea*; the *Kalama*, flowing into the Ionian Sea; and the *Drin* and *Voyussa*, flowing into the Adriatic.

1. The *Danube* is not only the most considerable river of Turkey, but also the only one that is permanently navigable, and forms for some distance its northern boundary. It enters Turkey a short distance above Widin, and leaves it at Siliustria, where it enters Roumania, and ultimately reaches the Black Sea. Its chief feeders below Belgrade are the *Morava*, which flows through Servia; the *Aluta*, *Sereth*, and *Pruth*, in Roumania; and the *Isker*, in the principality of Bulgaria.

2. The *Maritza*, which rises in the *Despoto Dagh*, has a length of 320 miles and a basin of 17,500 square miles, and is navigable during the winter for small vessels as high as Adrianople, 106 miles from the sea.

**LAKES.**—The lakes are *Scutari*, drained by the *Boyana*; *Ochrida*, drained by the *Drin*; and *Janina*, which has no visible outlet—all three situated on the western side of the Pindus Range, within the Adriatic and Mediterranean basins.

**CLIMATE.**—Most parts of Turkey have a warm and delightful climate—much warmer than that of England, as is the case with all the countries that border on the Mediterranean. But to the north of the Balkan the winters are severe.

**PRODUCTIONS.**—The productions of the vegetable kingdom are exceedingly rich and varied. Evergreen foliage distinguishes the southern and south-western slopes of Turkey. The *vine* grows luxuriantly to the south of the Balkan, and the *fig*, *olive*, and *mulberry* are abundant: the *orange* also thrives. *Corn* is grown abund-

1. *Dagh*, mountain; *Despoto Dagh*, "monks" mountains.



antly in the provinces watered by the Danube. *Iron* and other minerals abound in the hilly tracts adjoining the Balkan chain, but they are only worked to a limited extent.

**DIVISIONS.**—By the Treaty of Berlin, 1878, *Bulgaria* and *Eastern Roumelia* were formed into autonomous (self-governing) tributary principalities; *Bosnia* and *Herzegovina* were handed over to Austria, to be occupied and administered for an indefinite period; *Roumania*, *Servia*, and *Montenegro* were definitely acknowledged as independent States, and acquired additional territory.

European Turkey thus includes (1) *Turkey Proper*, comprising the provinces still under the direct rule of the Porte; (2) the self-governing *Principality of Bulgaria*, of which the province of *Eastern Roumelia* has formed, since 1886, an integral part, under the name of *South Bulgaria*; and (3) *Bosnia and Herzegovina*, occupied and administered by Austria as a portion of the empire.

## I. TURKEY PROPER.

**TURKEY PROPER** is bounded on the *north* by *Bulgaria*, *Servia*, and *Montenegro*; on the *south*, by the *Sea of Marmora*, the *Dardanelles*, the *Egean Sea*, and *Greece*; on the *east* by the *Black Sea* and the *Strait of Constantinople*; and on the *west* by the *Adriatic* and the *Ionian Sea*. Turkey Proper has an area of 66,500 square miles, which exceeds that of *England* and *Wales* by about 8,500 square miles.

**INHABITANTS.**—The population of Turkey Proper is about 4½ millions, 700,000 of whom are *Turks*, 1½ millions *Albanians*, and 1½ millions *Greeks*, *Bulgarians*, &c.

**INDUSTRIES.**—Turkey is a badly-governed country, and the pursuits of industry are hence at a low ebb. Its great natural capabilities—in soil, climate, and vegetation—are for the most part neglected. In the northern districts, large numbers of oxen and sheep are reared on the rich natural pastures. In the towns, the preparation of morocco leather is pursued with considerable skill. There are works in metal upon a scale of some magnitude in the larger towns. In *Albania* and the other mountain districts, the people are chiefly shepherds.

**Commerce.**—The amount of the foreign trade is considerable, and a large portion of it is carried on with the *United Kingdom*. *Greeks*, *Armenians*, and *Englishmen* are the chief agents in this trade. The annual value of the *imports* is nearly 20 millions sterling; that of the *exports*, about 13½ millions sterling.

**Exports and Imports.**—Fruits (chiefly raisins and figs), wheat and corn, olive oil, wine, wax, honey, raw silk and silk cocoons, sponges, attar of roses, minerals, and other natural produce—with wool, tobacco, morocco leather, and carpets (the latter worked by the women of the nomad tribes who occupy portions of Asiatic Turkey)—form the *exports* of Turkey. The chief *imports* are cotton, woollen and linen manufactures, wheat and flour, coal and iron, coffee and sugar, petroleum, &c.

The *exports* from Turkey to Great Britain amount to  $1\frac{1}{2}$  millions, and the *imports* of British produce into Turkey to about  $3\frac{1}{2}$  millions sterling.

The *imports* from Asiatic to European Turkey amount to about  $3\frac{1}{2}$  millions sterling a year, and the *exports* to  $3\frac{1}{2}$  millions.

The chief *ports* are Constantinople, Salonica, Enos, and Gallipoli.

The means of internal communication are defective; there are no *canals* or *navigable rivers* in Turkey Proper, few of the wretchedly-constructed *roads* are practicable for carriages, and goods are transported mostly by pack animals. Previous to 1869 there were no *railways*, but at present there are about 900 miles open for traffic, and Turkey has been, since 1888, in direct railway communication with the rest of Europe. The main lines start from CONSTANTINOPLE and SALONICA—the latter is now the nearest port, on the European mainland, to Egypt.

**GOVERNMENT.**—The government of Turkey is a despotic monarchy, in which the Sultan (as the sovereign is called) exercises an authority that is practically absolute. The central Government is carried on under the direction of the Sultan by the Grand Vizier and a Council of Ministers, while religious matters are regulated by the "Sheik-ul-Islam," the head of the Church. The government of the various provinces is administered by Pashas, appointed by the Sultan.

The annual *Revenue* is about 16 $\frac{1}{2}$  millions sterling, and the *Expenditure* about 19 $\frac{1}{2}$  millions, while the Public Debt, foreign and internal, amounts to about 180 millions sterling.

*Military service* is compulsory on all the Mohammedan subjects of the Sultan, but non-Mohammedans pay an exemption tax. The permanent *Army* contains 150,000 men and 10,000 officers, but in time of war more than 800,000 trained men could be called out for service. The Turkish *Navy* consists of 64 steamers, of which 15 are *ironclads*, and 52 *torpedo-boats*, and is manned by 30,000 sailors and 10,000 marines. The shores of the Bosphorus and the Dardanelles are strongly fortified.

**Religion and Education.**—The Turks themselves are Mohammedans, but the rest of the population of Turkey are members of the Greek Church. Public education, although encouraged, has not made much progress, and the limited instruction given in the public schools and colleges is based on the Koran.

**DIVISIONS.**—Turkey Proper is divided into *Vilayets* or governments, which are again subdivided into *Sanjaks*, or provinces, and *Kazas*, or districts.

The *seven Vilayets* of Turkey Proper are Constantinople (city), Adrianople, Salonica, Monastir, Janina, Scutari (Albania), and Kossovo.

The island of *Candia* or *Crete* is divided into the three provinces of Retima, Xhanis, and Candia.

**CONSTANTINOPLE** (873) is the capital of the Turkish Empire. It stands at the southern entrance of the Strait of Constantinople—the Thracian Bosphorus of the ancients—in a commanding situation. Pera and Galata are the chief suburbs.

Adrianople (100), the second city of Turkey, is on the banks of the

river *Maritza* (the ancient *Hebrus*), to the north-west of the capital. *Galipoli* (11) is on the northern shores of the Dardanelles (the *Hellespont* of ancient geography). *Salonica* (60), anciently *Thessalonica*, is at the head of a Gulf of the same name in the north-western corner of the Archipelago, and is a place of considerable trade.

## II. BULGARIA.

The Principality of BULGARIA,<sup>1</sup> with which EASTERN ROUMELIA is incorporated under the name of *South Bulgaria*, extends from the Danube on the *north*, and Servia on the *west*, to the Turkish province of Adrianople on the *south*. The Black Sea forms its eastern boundary. Its *area* is about 24,000 square miles,<sup>2</sup> and its *population* numbers fully 3½ millions,<sup>3</sup> of whom about 2½ millions are *Bulgarians*, and half a million *Turks*. The Bulgarian people, though of Finnish origin, speak the Servian language, and are nearly all members of the Greek Church.

1. The soil is generally fertile, and large quantities of wheat and other grains are grown and exported. Much attention is also paid to the rearing of cattle and sheep, and wool, tallow, butter, and hides are exported. *Iron* and *coal* are also found, but "nothing has been done to develop these valuable productions of nature." The means of intercommunication are deficient; there are few good roads, but there are two lines of railway—(1) the great trunk-line from Constantinople to Paris, passing through Philippopolis and Sofia, and (2) a line connecting Rustchuk, on the Danube, and Shumla with Varna.

2. Bulgaria is virtually independent, governed by a prince elected by the "National Assembly." The sovereignty of the Porte is nominally acknowledged by the payment of an annual tribute. A certain portion of the Public Debt of the Turkish Empire has been taken over by the Principality.

3. The chief towns are *SOFLA* (30), the capital, on the northern slopes of the Balkans; *VARNA* (25), a fortified port on the Black Sea; *TIRNOVA*, the old capital of the Bulgarian kingdom; and the famous fortresses of *Widin*, *Rustchuk*, *Shumla*, and *Silistria*, memorable in connection with the war between Russia and Turkey in 1877-78.

The province of EASTERN ROUMELIA, formed in 1878 in accordance with the Treaty of Berlin, and now, under the name of South Bulgaria, an integral part of the Principality, has an *area* of 13,500 square miles,<sup>4</sup> and a *population*, in 1888, of 960,000.<sup>5</sup> The soil is in parts extremely fertile, and on the southern slopes of the Balkans are the chief rose-growing districts.

The people are mainly Bulgarians, and were, until 1885, governed by a Christian Governor-General appointed by the Sultan, with the consent of the Great Powers.

The chief towns are *Philippopolis* (33), the former capital of the province; *Kasanlik* and *Silivno*, the centres of the manufacture of attar of roses; *Burgas*

1. Bulgaria formed an independent kingdom from the middle of the 7th to the middle of the 14th century, when it was annexed by the Hungarians, from whom it was wrested by the Turks in 1392. The misgovernment of Bulgaria by the Turks was one of the principal causes of the Russo-Turkish war of 1877-78.

2. Nearly two-fifths the area of England and Wales.

3. An average of 80 persons per square mile, about one-sixth that of England.

4. One-fourth the area of England and Wales.

5. An average of only 71 persons to the square mile. In England the average density of population is 540 per square mile.

is the port. In the Balkans, on the north, is the now famous *Shipka Pass*. *Tartar Bazar*, in the west, is connected by rail with Adrianople, and thence with Constantinople.

### III. BOSNIA AND HERZEGOVINA.

Before the Russo-Turkish war of 1877-78, Bosnia and Herzegovina, in the north-west of the Balkan peninsula, formed part of the Turkish dominions.

Article 23 of the Treaty of Berlin (1878) declared that these provinces were to be occupied and administered by Austria-Hungary, and they are now treated as integral parts of the Austro-Hungarian Empire. Austrian troops also occupy the Sanjak of Novi-bazar, which lies south of Bosnia, between Serbia and Montenegro, but the civil administration of the district is still in the hands of the Turks.

#### QUESTIONS ON TURKEY IN EUROPE.

1. How is Turkey bounded?
2. What islands belong to Turkey?
3. What mountain chains are within the limits of European Turkey?
4. Describe briefly the course of the river Danube, and name the principal streams by which it is joined.
5. What five rivers flow through Turkey into the Archipelago?
6. What kind of climate has Turkey? Name some of its vegetable productions.
7. What were the chief provisions of the Treaty of Berlin?
8. Give the area and boundaries of Turkey Proper.
9. Name its principal industries and productions.
10. Give in round numbers the population of Turkey in Europe before and after the war of 1877-78.

11. What form of government prevails in Turkey, and how is the sovereign styled?
12. What is the religion of the Turks themselves, and what is that of the other inhabitants of Turkey?
13. How is Turkey divided for administrative purposes? Name the vilayets and chief towns of each.
14. Describe briefly the capital of Turkey.
15. What do you know of Adrianople, Gallipoli, and Salonica?
16. Which of the provinces are now semi-independent principalities?
17. What form of government prevails in Bulgaria? What do you know of South Bulgaria?
18. Give particulars of the situation, productions, &c., of the principality.
19. Where are Bosnia and Herzegovina, and to what State do they now virtually belong?

#### INDEPENDENT STATES.

Bulgaria and South Bulgaria nominally form part of European Turkey. Three other States, formerly tributary to the Porte, namely, Serbia and Montenegro, to the south, and Roumania, to the north, of the Danube, are entirely independent.

#### MONTENEGRO.<sup>1</sup>

This small State lies to the north-west of Turkey Proper, and has been virtually independent since the 17th century. By the Treaty of Berlin, not only was its absolute independence acknowledged and guaranteed, but several portions of the adjacent Turkish territories were added to it.

The ceded districts comprise the port of *Antivari*, with a seaboard of some 28 miles in length, the fortified town of *Podgoritzza*, and part of *Lake Scutari*. In 1880, the town and district of *Dulcigno* were also ceded by Turkey. With these additions, the Principality has an area of only 3,630 square miles,<sup>2</sup> and a total population of about 300,000, of whom 10,000 are *Mohammedans*, 4,000 *Roman Catholics*; the rest belong to the *Orthodox Greek Church*.

1. *Montenegro* is the Italian name; the Turks call it *Kara-dagh*, and the natives *Zernagora*; but all the names signify "black-mountain,"

from the dark pine forests which cover the slopes of the mountains.

2. I.e., about one-sixteenth the area of England and Wales.

The country is entirely covered by irregular precipitous spurs of the Dinaric Alps, and inter-communication is exceedingly difficult, there being no navigable rivers, and scarcely any roads. Montenegro is remarkable only for the indomitable spirit and energy of its inhabitants, who have successfully maintained their independence for two centuries. The capital is **Cettinje** (2), where the Prince or Hospodar resides and the State Council meets. **Dulcigno** has 5,000, **Podgoritza** 6,000, and **Niksic** 3,000 inhabitants.

## SERVIA.

Servia includes the territory on either side of the Morava, and extends to the frontiers of Bulgaria on the east, and Bosnia on the west. The Danube forms the northern boundary. Its area is 18,800 square miles, or about one-third that of England and Wales.

**NATURAL FEATURES.**—Servia is decidedly mountainous, being traversed in all directions by spurs (generally well wooded) of the *Dinaric Alps* and the *Balkans*. It is well watered by numerous tributaries of the Danube, which forms the natural boundary on the north. The largest river is the *Morava*, which flows almost through the centre of the country from south to north.

**CLIMATE and PRODUCTIONS.**—Servia, being subject to extremes of heat and cold, its climate is variable. The soil is on the whole fertile, and about one-third of the total area is under cultivation, the rest serving as pastures for immense herds of swine, which form the principal articles of export.<sup>1</sup> Its *mineral productions* comprise coal, gold, copper, zinc, lead, and iron. Wheat, tobacco, silk, wine, and timber are also exported.<sup>2</sup>

**INHABITANTS.**—The population of Servia numbers about 2 millions, nearly all of whom are Serbs or Slavs.

**GOVERNMENT.**—The executive power is vested in the King; the legislative authority is exercised by the King in conjunction with the *Sovjet* or Senate, and the *Narodna-Skupshtina* or National Assembly.

Servia became autonomous on the conclusion of the war of 1815-29, but remained tributary to Turkey until 1877, when it proclaimed its independence, which was finally confirmed by Article 34 of the Treaty of Berlin, July 13, 1878. The *Revenue* and *Expenditure* each amount to about 1½ million sterling. The *Public Debt* amounts to about 12 millions. The Servian army, on a war footing, numbers about 210,000 men.

**DIVISIONS and TOWNS.**—Servia is divided into 15 provinces, which are named after the chief towns in each. The principal towns are **Belgrade** (40), the capital, a strongly-fortified town on the junction of the Save with the Danube; **Semendria**, also fortified; **Kruschevatz**, the ancient capital of the Servian kingdom; and **Nissa** or **Nish**, the chief town of the territory acquired under the Treaty of Berlin.

1. The vast majority of the people are engaged in agriculture.

2. The bulk of the trade, which amounts to about 3 millions sterling a year, is carried on with Austria-Hungary.

## ROUMANIA.

Roumania,<sup>1</sup> proclaimed a kingdom in 1881, was formed in 1861 by the union of **Moldavia** and **Wallachia**, two provinces occupying the plain between the Carpathians and the Danube. Its area, including the territory of the Dobrudja to the south of the Danube, is 48,000 square miles, about five-sixths that of England and Wales.

Bessarabia was taken from Russia by the Treaty of Paris (1856), but was restored in 1878, Roumania being compensated by the addition of the Sanjak of Tulcha, or the Dobrudja, south of the Danube, and the islands forming the delta of that river.

**NATURAL FEATURES.**—The western districts verging on the Carpathians are hilly, but the greater part of the country is level, and well watered by the *Aluta*, *Arjish*, *Prahova*, *Sereth*, and other tributaries of the Danube.

**CLIMATE and PRODUCTIONS.**—The climate is a strictly continental one, *i.e.*, subject to extremes of heat and cold. The mountainous western part is well wooded, and the extensive plains are admirably suited for both pastoral and agricultural purposes. The productions comprise the various kinds of grain and fruits, and immense herds of cattle and sheep are reared. Various minerals are also abundant, but only salt and petroleum are worked.

**INHABITANTS.**—The population is now estimated at 5,500,000, an average of 114 persons to the square mile—less than a fourth of the average density of population in England. There are 400,000 Jews, and an equal number of Gipsies, Slavs, Germans, and other foreigners, the bulk of the people being Roumanians, who are the descendants of Roman colonists and the native Dacians.

**Education and Religion.**—Education is by law free and compulsory, but only 2 per cent. of the population attend school. The entire population, with the exception of about a million Catholics, Protestants, and Jews, are members of the *Orthodox Greek Church*.

**INDUSTRIES.**—Cattle and sheep rearing and agriculture are the chief industries. Manufactures, on a limited scale, are carried on in a few of the larger towns.

Wheat, barley, maize, and other corn, timber, and wool, are largely exported; the imports are chiefly manufactured goods and colonial produce. The imports exceed in value the exports; the former amounting to about 12 millions sterling, and the latter to about 10 millions.<sup>2</sup> In 1891, there were 1,600 miles of railway open for traffic.

**GOVERNMENT.**—The government is a limited monarchy, the king being assisted by an Executive Council and an elected Senate and Chamber of Deputies.

1. Roumania, or *Romania*, the country of the *Romani*, *i.e.*, the descendants of the old Roman colonists and the native Dacians. Three-fourths of the words in the Roumanian language are directly derived from the Latin.

2. The trade with the United Kingdom is con-

siderable—more than 3 million pounds' worth of produce, chiefly corn (maize, wheat, and barley), is annually sent to Great Britain; the imports therefrom, consisting principally of *textile fabrics, metal goods, and coal*, amount to about 1½ million sterling.

After the formation of the Principality in 1861, Roumania continued to pay an annual tribute to the Porte until 1877, when it proclaimed its entire independence, which was finally confirmed, by the Treaty of Berlin, in 1878. The *Revenue* and *Expenditure* each amount to about 5½ millions sterling, while the *Public Debt* is no less than 38 millions. The *military forces* of Roumania consist of the "Permanent Army," numbering about 52,000 men; the "Territorial Army," 82,000, besides the Militia, National Guard, and general levy.

**DIVISIONS and TOWNS.**—Wallachia is divided into 18, and Moldavia into 13, districts, each under a prefect or governor.

The chief towns are **BUCHAREST** (222), the capital and seat of the government, with some important manufactures; **Jassy** (90), the chief town of Moldavia; other towns are **Galatz** (80), the principal port of the kingdom, **Braila** (28), and **Ismail**, two other important ports on the Danube.

#### QUESTIONS ON MONTENEGRO, SERVIA, AND ROUMANIA.

1. What three States became completely independent of the Porte in 1878?
2. Where is Montenegro? State what you know of the country and its inhabitants.
3. How is Serbia bounded? What is its present area?
4. Describe the physical character of Serbia, its climate and productions.
5. How is Serbia divided? Name the chief towns.
6. What is the present form of government in Serbia? When did Serbia obtain (a) local self-government and (b) entire independence?
7. Where is Roumania, and what are its boundaries?
8. What is its area as fixed by the Treaty

of Berlin? Describe the particular territorial changes.

9. What part of the country is (a) mountainous, (b) level?

10. What is meant by a "continental" climate?

11. Name the principal industries and productions of Roumania.

12. What is the population of Roumania, and to what races do the people belong?

13. What is the form of government? When did Roumania become (a) partly, and (b) fully, independent of Turkey?

14. Where are Bucharest, Jassy, Galatz, and Braila?

#### GREECE.

**GREECE**<sup>1</sup> is a small country in the south of Europe, and consists of three well-marked divisions:—Northern Greece, Southern Greece or the Morea,<sup>2</sup> and the adjacent islands, or Insular Greece.

The **Morea** forms a peninsula which is nearly divided from the rest of the mainland by the Gulf of Corinth. The Isthmus of Corinth (only three miles across) unites this peninsula to Northern Greece.

**BOUNDARIES.**—Greece is bounded on the *north* by Turkey, on the *west* and *south* by the Mediterranean, and on the *east* by the *Ægean* Sea.

**EXTENT.**—Including the Ionian Islands, the total *area* of the kingdom of Greece is nearly 25,000 square miles—about half the size of England.

The *greatest length*, from north to south, is 205 miles.

The *greatest breadth*, from east to west, is 160 miles.

1. Greece, or *Græcia*, so called by the Romans. The old Greek name, "Hellas," was not exclusively applied to Greece proper, but was also

given to other countries inhabited by the Greeks or "Hellenes."

2. Morea, from Gr. *móron*, a mulberry. Called by the old Greeks "the Peloponnesus."

In 1879, the actual area of Greece was officially estimated at 19,941 square miles, of which Northern Greece comprised 7,529 square miles; Southern Greece, 8,268 square miles; and Insular Greece, 4,149 square miles.

In 1881, Greece acquired from Turkey a portion of Albania, comprising an area of 5,170 square miles; so that the total area of the kingdom is now about 25,000 square miles.

**COASTS.**—The mainland of Greece has the sea upon three sides, and its coasts are indented by a vast number of inlets. The peninsula of the Morea is subdivided and broken up by deep bays and gulfs into several smaller peninsulas. The total length of *coast-line* is upwards of 2,000 miles, or rather more than 1 mile of coast to every 12 square miles of area.

Thirlwall remarks that "Greece is distinguished among European countries by the same character which distinguishes Europe itself from the other continents, viz., the great range of its coast compared with the extent of its surface; so that while in the latter respect it is considerably less than Portugal, in the former it exceeds the whole Pyrenean Peninsula."<sup>1</sup>

1. **Capes.**—The two principal capes are *Cape Matapan*<sup>2</sup> and *Cape Colonna*.<sup>3</sup> Cape Matapan is the extreme southern point of the Morea. Cape Colonna is the southward termination of the peninsula of Attica, in Northern Greece.

2. **Inlets.**—The Gulfs of Volo, Ægina, and Nauplia on the east; the Gulfs of Marathonisi and Koroni or Kalamata on the south; and the Gulfs of Patras, Corinth or Lepanto, and Arta on the west.

3. **Straits.**—The principal straits are those between the islands of Negropont, Cerigo, and Corfu, and the mainland.

**ISLANDS.**—A large portion of Greece consists of islands, naturally divisible into four groups, viz. :—

1. **Eubœa** or Negropont,<sup>4</sup> more than 100 miles long, is the largest island of Greece. It is divided from the mainland by the channels of Talanta and Egripo, the former of which is only 50 yards wide in its narrowest part. To the north-east and south of it lie—

2. The **Sporades**,<sup>5</sup> of which the principal are Skyro, Skopelos, Koluri, Egina, and Spezzia.

3. The **Cyclades**<sup>6</sup> are so called because they seem to encircle the sacred island of Delos. The principal islands are Andros, Tinos, Naxos, Paros, Milos, and Santorin.<sup>7</sup>

4. The **Ionian Islands** are situated to the west and south of Greece. They comprehend *Corfu*, *Pazo*, *Santa Maura*, *Ithaca*, *Cephalonia*, *Zante*, and *Cerigo*, with many smaller islets. These islands exhibit, for the most part, a rocky and even mountainous *surface*. They enjoy a delightful *climate*, and have a soil which (in some localities) is fertile and productive. The small species of vine which yields the Corinthian grape (the fruit of which reaches our own shores under the familiar name of *currants*) is their most characteristic article of produce. The olive also flourishes. The *inhabitants* of the

1. History of Greece, chap. 1.

2. *Tanarium Promontorium*.

3. *Sanium Promontorium*.

4. A bridge connects the island with the mainland, whence the name Negropont, from *Egripo*, and *ponte*, a bridge.

5. Sporades, Gr. *sporas*, *sporades*, scattered.

6. Cyclades, Gr. *kuklos*, a circle.

7. Santorin is the seat of volcanic fires, which are almost constantly burning.



Ionian islands are of the Greek race. They number rather more than 250,000. The largest of the islands is Cephalonia; Corfu is second in size, and Zante third. Corfu and Zante are the most populous and industrious of the number.

The Ionian Islands were formerly under the protection of Great Britain, but were incorporated with Greece in 1863. The town of *Corfu* (19), on the island of that name, is the capital.

**MOUNTAINS.**—Every part of Greece is mountainous. The highest elevations reach upwards of 8,000 feet above the sea. Mount St. Elias (the ancient *Taygētus*), in the south of the Morea, is one of the most celebrated.

The mountains known to the ancients by the names of *Cēta*, *Parnassus*, *Helicon*, *Citharon*, with others that are famous in classic story, are within the limits of Northern Greece—that is, to the north of the Gulf of Corinth. In Thessaly, are *Mount Ossa* (Kissovo), 6,400 feet, and *Mount Pelion* (Plessidi), 5,300 feet in height. Between Mount Cēta and the sea lies the famous *Pass of Thermopylæ*.<sup>1</sup>

**RIVERS.**—Greece has no rivers of any magnitude. The small streams by which the country is watered, though bearing names that are famous in the records of past ages, are for the most part mere torrents.

The largest rivers in Northern Greece are the *Salembria*, in Thessaly; the *Aspropotamo* (the ancient *Achelous*), which rises in the Pindus Range; and the *Arta*, which flows into the gulf of the same name. The largest river of the Morea is the *Rufia* (the ancient *Alpheus*), which flows into the Bay of Arkadia.

**Lakes.**—There are numerous lakes, but none of any considerable size. The largest is *Lake Topolias*, in Northern Greece, which is drained into the Strait of Talanta by subterranean channels.

**CLIMATE.**—Greece has a warm and delightful climate, snow seldom lying on the lowlands.

The mean annual temperature at Athens is 60° F., but in summer the temperature is frequently 100° F., and the heat then is so great that most of the smaller streams, and even some of the larger rivers, are dried up.

**PRODUCTIONS.**—Though much of the surface of the country is occupied by sterile rock, yet the vegetation is richly abundant, wherever sufficient soil can be found for its growth. The *vine* and the *olive*, the *orange*, *lemon*, *citron*, *fig*, and *mulberry* are amongst its native fruits. The *cotton-plant* grows wild, as also does *madder*. The *honey* of Attica still preserves its ancient fame.

The various *marbles* and *building-stones* of Greece are of deserved celebrity. The island of Paros, in particular, yields the finest statuary marble. *Mineral springs* are very numerous, and many of the running streams are lost in subterranean chasms.

**INHABITANTS.**—The population of Greece is about 2½ millions, an average of only 90 per square mile.<sup>2</sup> The Greeks are quick, intelligent, and enterprising, and have made great progress since the successful insurrection of 1821-29, when they gained their independence.

**Race and Language.**—Three-fourths of the people are probably descended from the old *Greeks*, and their language, the *Romæic*, closely resembles the

1. Thermopylæ, Gr. *thermos*, hot, and *pylæ*, a gate; from the hot springs in the pass. Famous for its defence by 300 Spartans under Leonidas against Xerxes, B.C. 480.

2. That is, about a sixth of the density of population in England (540 per square mile).

ancient Greek tongue. Besides the Greeks proper there are about 100,000 Albanians or Arnauts, who are the most intelligent and enterprising of the population.

**Religion and Education.**—The *Greek Church* represents the established form of *religion*, and to it the great majority of the inhabitants belong. Public *education* is compulsory, but the law is very rarely enforced in country districts, and about one-half of the men and three-fourths of the women can neither read nor write.

**INDUSTRIES.**—The industry of Greece is chiefly pastoral, but a considerable amount of trade is carried on from the various ports. Currants and other fruits, olive-oil, honey, tobacco, and cotton are the exportable produce of the country.

Only one-sixth of the land is actually under cultivation; and although agriculture is in a very backward state, the produce is considerable. Large quantities of various dried fruits are exported, but the corn grown is not sufficient for home consumption.

**Commerce.**—The commerce of the kingdom is considerable, the value of the *imports* being about 4½ millions sterling, and the *exports* about 3½ millions. The staple article of export is *currants*, of which immense quantities are grown along the shores of the Gulf of Corinth and on the Ionian Islands.<sup>1</sup>

**Internal Communication.**—Still defective, although the *roads* have been greatly improved, and there are now about 400 miles of *railway* open. Most of the trade is carried on by sea, the mercantile navy numbering 80 steamers and 5,000 sailing vessels. A ship-canal is being cut across the Isthmus of Corinth.

**GOVERNMENT.**—The kingdom of Greece forms a limited and hereditary monarchy. The legislative power is vested in an elected Chamber of Representatives called the *Boulé*.

The *Revenue* and *Expenditure* each amount to about 8 millions sterling, while the *Public Debt* amounts to 22½ millions. The *army* consists, in peace, of about 28,000 men, but in war time over 300,000 men could be put in the field. The *navy* consists of a few vessels, manned by about 3,000 men.

**DIVISIONS and TOWNS.**—The country is physically divided into Northern Greece (the part of the Greek mainland which is to the north of the Gulf of Corinth), the Morea, and the Islands.

Divisions.	Chief Towns.
Northern Greece . . . . .	Athens, Livadia, Thiva, Lepanto.
Thessaly . . . . .	Trikkala, Larissa, Volo.
The Morea . . . . .	Patras, Nauplia, Corinth.
The Islands . . . . .	Syra, Egripo or Negropont, Corfu.

Politically, the kingdom is divided into 17 *Nomarchies* or governments, which are further subdivided into *Eparchies* or provinces.

**ATHENS** (107) is the capital of modern Greece. It is on the western side of the peninsula of Attica, about five miles distant from the harbour of the Piræus (34), which forms its port. Athens is a city

1. Currants, so called from the city of Corinth. Value of currants exported to Great Britain in 1890, £1,843,000. The total crop in the same year (including that of the Ionian Islands) amounted to 145,000 tons.

of moderate size, but greatly surpasses in this respect any other place in Greece. The interest belonging to localities in this classic land depends upon their association with the events of a past age. The sites of *Marathon* and *Salamis* are not far distant from the capital—the former twenty miles to the north-east. *Salamis* is represented by the modern *Koluri*, an island in the Gulf of Athens.

*Thiva*, a small town to the north-west of Athens, represents the Boeotian *Thebes*. Further west, a short distance from the shore of the Gulf of Corinth, and at the foot of Parnassus, is the village of *Kastri*, the ancient *Delphi*, the oracle of Apollo, and the fabled haunt of the Muses. Nearly due north of *Kastri*, on the shore of the strait which flows between the mainland and the island of *Negropont*, is *Thermopylae*.

*Patras* (34) and *Nauplia*, both situated on the coasts of the Morea, are, next to the capital, the most important seats of Greek commerce. *Patras* lies near the entrance of the Gulf of Corinth. *Nauplia* is at the head of a gulf of the same name on the eastern side of the peninsula, in the vicinity of the ancient *Argos*. *Corinth*, near the isthmus to which its name is given, is now small and unimportant; as also is *Sparta*, near the site of the ancient *Sparta*, in the southerly portion of the Morea. A ship-canal is now being cut across the isthmus of Corinth.

*Syra* or *Hermoupolis* (25), on the island of that name, is commercially the most important among the towns of insular Greece. The little island of *Delos*, the fabled birthplace of Apollo and Artemis, is only a few miles east of *Syra* (between the two larger islands of *Rhenea* and *Mykoni*).

*Corfu* (19) is the capital of the Ionian Islands.

#### QUESTIONS ON GREECE.

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|---|--|
| <ol style="list-style-type: none"> <li>1. Where is Greece? How is it bounded?</li> <li>2. What peninsula forms part of Greece?</li> <li>3. Name the two most important capes of Greece, and point them out on the map.</li> <li>4. Name some of the Greek islands.</li> <li>5. Describe briefly the natural features and productions of the Ionian Islands.</li> <li>6. What mountains, well known in classical antiquity, are within the limits of modern Greece?</li> <li>7. What kind of climate and soil has Greece? Name some of the fruits that are native to its soil.</li> <li>8. To what pursuits is the industry of Greece</li> </ol> | <ol style="list-style-type: none"> <li>chiefly devoted? What articles of produce form the chief exports?</li> <li>9. What is the population and form of government, and how is the country divided (a) physically, (b) politically.</li> <li>10. What city forms the capital of Greece?</li> <li>11. In what parts of Greece are the following sites:—<i>Marathon</i>, <i>Salamis</i>, <i>Delphi</i>, <i>Thermopylae</i>, <i>Sparta</i>, and <i>Argos</i>?</li> <li>12. What two places are—next to Athens—the chief seats of Greek commerce?</li> <li>13. Where is <i>Syra</i>? What island, famous in classic story, is within the neighbouring portion of the Archipelago?</li> </ol> |
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#### ITALY.

ITALY<sup>1</sup> is a large country of southern Europe. The greater portion of it forms a peninsula which advances far into the Mediterranean.

**BOUNDARIES.**—Italy is bounded on the *north* by Austria and Switzerland; on the *north-west* by France; on the *south-west* and *south* by the Mediterranean; and on the *east* by the Adriatic Sea.

Italy is divided from France, Switzerland, and the Tyrol by the magnificent ranges of the Alps, and from the maritime provinces of Austria, Western Turkey, and Greece by the Adriatic Sea.

In shape, Italy is likened to a boot, the two smaller peninsulas into which it divides in the south forming respectively the toe and the heel.

<sup>1</sup> Italy, the country of the *Itali*, an ancient tribe who occupied the southern parts of the peninsula.

**EXTENT.**—The total *area* of Italy, including the islands, is estimated at 114,000 square miles, or nearly twice that of England and Wales.

The *greatest length*, from north-west to south-east, is about 700 miles.

The *breadth* varies from 350 miles in the north to between 80 and 140 miles in the centre, and less than 20 miles near its southern extremity.

**COASTS.**—Although regular and unbroken, except on the south, the coast-line of Italy is very extensive, and includes a great number of good harbours. The total length of the coast-line is about 4,000 miles, or about 1 mile of coast to every 28 square miles of area. Several parts of the Italian coast, such as the Bay of Naples and the Gulf of Genoa, are famous for their scenery.

The principal capes, inlets, and straits are :—

1. **Capes.**—The principal are Spartivento, Santa Maria di Leuca, and Passaro. Cape Spartivento is the most southerly point of the Italian mainland; Cape Santa Maria di Leuca is the extreme south-eastern point; Cape Passaro is the southern point of Sicily.

2. **Inlets.**—The Adriatic Sea (the northerly part of which forms the Gulf of Venice), the Gulf of Taranto, the Bay of Naples, the Gulf of Gaeta, and the Gulf of Genoa, are all of them arms of the Mediterranean.

3. **Straits.**—The Strait of Otranto, at the entrance of the Adriatic; the Strait of Messina, between Italy and the island of Sicily; and the Strait of Bonifacio, between the islands of Sardinia and Corsica. In the Strait of Messina are the once-dreaded whirlpool *Charybdis* and the rock *Scylla*.

**ISLANDS.**—The three largest Italian islands are Sicily, Sardinia, and Corsica—the last-named of which belongs politically to France. The smaller islands are Malta, Gozo, Comino, the Lipari Islands, Elba, Caprera, Ischia, Capri, Pantellaria, and several others of less note lying near the western coasts of the peninsula. The Maltese Islands belong to Great Britain.

1. **Sicily**, the largest island in the Mediterranean, is about 180 miles long and 120 miles broad, and has an area of 11,290 square miles. Its shape is triangular, and its surface is extremely uneven. The principal mountain range runs across the northern part of the island and gives off a lateral ridge which terminates in Cape Passaro. The famous volcano, *Mount Etna*, is a detached mass rising from the north-east corner of the plain of Catania to the height of 10,874 feet above the sea. The climate is warm and delightful; and the soil, in the lower plains and valleys, is very fertile, producing abundance of fruits and grain. Various minerals and metals are also found, and marble, sulphur, &c., are largely exported. Relatively to its size, Sicily has a dense population—about 3½ millions, or 288 per square mile.

2. **Sardinia**, the second largest island in the Mediterranean, has an area of 9,399 square miles. Its surface is mountainous; the highest point of the Monte del Gennargentu reaches the height of about 6,000 feet. Its extremely fertile plains and valleys are well watered by numerous rivers, and its natural productions are varied and valuable. The population scarcely exceeds three-quarters of a million. The capital, *Cagliari*, an important port on the south coast, and *Sassari*, the chief town in the northern part of the island, have each above 30,000 inhabitants.

3. **Corsica**, though an Italian island, belongs to France (*see pp. 88 and 94*).

4. **Malta**, with the two smaller adjacent islands of *Gozo* and *Comino*, has belonged to England since the year 1800. Malta has 166,000 inhabitants.

Its chief town is *Valletta*, a busy seat of trade and an important naval station.<sup>1</sup>

5. The **Lipari Isles**, off the north coast of Sicily, are of volcanic origin, and still contain the two active volcanoes of *Stromboli* and *Vulcano*.

6. **Ischia**, a small island at the entrance of the Gulf of Naples, was in 1881, and again in 1883, the scene of most destructive earthquakes. In the former over 200, and in the latter 2,450, lives were lost, and hundreds of houses and other buildings destroyed.

7. **Capri** is famous as being the place where the Roman emperor, *Tiberius*, passed the last ten years of his life, and also as being the favourite retreat of *Augustus*; **Elba**, as the place of *Napoleon's* exile; and **Caprera**, as the home of *Garibaldi*, the liberator of Italy.

**MOUNTAINS.**—A large portion of Italy is mountainous. The principal mountains are the *Alps*, which encircle the north of Italy, forming its frontier on the side of France, Switzerland, and Germany, and the *Apennines*, which run through the length of the peninsula, branching off from the Alps near the head of the Gulf of Genoa.

1. The Alps have been already described under Switzerland. All the higher portions of the Alps are covered with perpetual snow; but the glacier-region is chiefly upon their northern declivities, beyond the Italian limits. *Mont Blanc*, 15,781 feet, the highest of the Alps, is on the border-line of Italy and France. *Monte Rosa*, 15,158 feet, is on that of Italy and Switzerland.

2. The *Apennines* are much less elevated than the Alps, and occupy about two-thirds of peninsular Italy. The highest points are *Monte Cimone*, 6,975 feet, in the Northern Apennines; *Monte Corno* or *Gran Sasso d'Italia*, "the Great Rock of Italy," 9,521 feet, in the Central or Neapolitan Apennines; and *Monte Amara*, in the Southern Apennines, 9,000 feet.

**VOLCANOES.**—*Mount Vesuvius* (3,932 feet), the only active volcano upon the mainland of Europe, is on the west side of Italy, near the shores of the Bay of Naples. *Mount Etna*, on the island of Sicily, and also an active volcano, is of much more considerable height, reaching 10,874 feet above the sea. *Stromboli*, one of the Lipari Islands, is a volcano in constant activity.

In the first known eruption of *Vesuvius* (A.D. 69) the cities of *Herculeanum* and *Pompeii* were so completely covered by lava and ashes that their very site long remained unknown. *Mount Etna* is the largest and loftiest volcano in Europe, and, since the year 476, has been in eruption about sixty times. The whole of the south of Italy is especially subject to volcanic disturbances. In the earthquake of 1783, over 800 towns and villages were destroyed, and in that of 1857 over 10,000 persons perished. The earthquakes of 1881 and 1883 at *Ischia* were most destructive.

**PLAINS.**—The largest is the *Plain of Lombardy*, which includes the northern part of Italy between the Alps and the Apennines. It is watered by the rivers *Po* and *Adige*, with their numerous tributaries, and is one of the most fertile regions of Europe. Less extensive plains border the eastern and western coasts of the Italian peninsula between the Apennines and the sea.

**RIVERS.**—With a few exceptions, the rivers of Italy are of comparatively little importance in a merely geographical sense, though of great historical fame. In Italy, as in Greece and other lands,

1. For full accounts of Malta and other British possessions see "The Advanced Class-Book of Modern Geography." (London: George Philip & Son).

many localities which in themselves claim little regard, acquire interest from their association with the great events of a former age.<sup>1</sup>

The chief rivers of Italy are the *Po* and *Adige*, flowing into the Adriatic; and the *Arno* and *Tiber*, flowing into the Mediterranean. (1.) The *Po* rises in Mont Viso, on the borders between France and Italy, and has a total length of nearly 450 miles, of which 280 miles are navigable. Its chief tributaries are the *Ticino*, from Lake Maggiore; the *Adda*, from Lake Como; the *Oglio*, from Lake Iseo; and the *Mincio*, from Lake Garda. The immense quantities of débris brought down from the mountains by the *Po* and its tributaries have added much land to its delta, and have raised its bed so much that its surface is actually higher than the general level of the surrounding districts,<sup>2</sup> which are protected from inundation by vast embankments. (2.) The *Adige* rises in the Rhetian Alps, and flows into the Gulf of Venice after a course of 250 miles. (3.) The *Arno* rises in the Apennines, and falls into the Ligurian Sea, after a course of 150 miles through one of the loveliest and most renowned parts of Italy. The upper *Arno* is connected by a canal with (4) the river *Tiber*, which is, historically, the most famous river in Europe. It flows by Rome, once the "mistress of the world," and has a total course of 210 miles.

**LAKES.**—The principal Italian lakes are *Maggiore*, *Lugano*, *Como*, and *Garda*, situated among the southern valleys of the Alps; with *Perugia*, *Bolsena*, and *Bracciano*, in the middle portion of the peninsula. *Albano* and *Nemi* are smaller lakes, a few miles south of Rome.

*Lake Maggiore* (152 square miles), is one of the prettiest of the Alpine lakes. Off its western shores are the beautiful Borromean islands. *Lake Como* (66 square miles) lies at an elevation of 684 feet above the sea, and is by far the most picturesque and sublime. The scenery of *Lake Garda* (183 square miles) and *Lake Lugano* is fine, but inferior to that of *Como* and *Maggiore*. The lakes of Central Italy generally occupy the craters of old volcanoes, and consequently are circular or oval in shape. They are smaller than the Alpine lakes, but two of them, *Bolsena* and *Albano*, are hardly less beautiful.

*Lake Maggiore* is drained by the river *Ticino*; *Lugano*, by the *Tresa*; *Como*, by the *Adda*; and *Garda*, by the *Mincio*. The lakes of *Perugia* and *Albano* are drained by artificial canals.

**CLIMATE.**—The climate of Italy is warm, as is the case with all the countries that border upon the Mediterranean. It is also, for the most part, dry and healthy. In particular parts of Italy, however, the air is very unhealthy, especially at some seasons of the year. This is the case in the low coast district of Tuscany, and in certain parts of the Roman territory, to the south and west of the city of Rome.<sup>3</sup>

**PRODUCTIONS.**—The vegetation of Italy is rich and luxuriant, in a degree which greatly surpasses that of countries that lie beneath a more northern sky. A rich evergreen foliage clothes the sides of the hills, and the plains are covered with the vine, the olive, the fig, and the mulberry, besides yielding abundant crops of the finest wheat and other corn. In mineral produce Italy is chiefly distinguished for

1. The stream of the *Rubicon*—in ancient times the limit between Roman Italy and the province of Cisalpine Gaul—is an example of this. It is believed to correspond to a little torrent now called the *Fiumecino*—one of a vast number of mountain torrents that descend from the eastern slope of the Apennines. The *Fiumecino* enters the Adriatic in lat. 45° 11'.

2. In its lower course the surface of the *Po* is several feet above the general level of the coun-

try through which it flows. At Ferrara the streets are actually 30 feet below the surface of the river. At its mouth the formation of land has been such that the old Roman seaport of *Adria* (whence the name *Adriatic Sea*) is now many miles inland.

3. The *malaria*, emanating from these pestilential marshes, and the *strocco*, a hot stifling wind from Africa, are the great drawbacks to the climate of Italy.

the sulphur supplied by Sicily, and the iron worked in the island of Elba. Marbles and building-stones of the finest quality abound throughout the country.

Among the *wild animals*, the lynx, chamois, and wolf are still found in the Alps, and the crested porcupine and wild boar in the south. The *fisheries* around the coast are valuable. The finest marble is found near Carrara in the Apennines.

**INHABITANTS.**—Italy, one of the most densely-peopled countries of Europe, contains upwards of 30 million inhabitants, equivalent to about 270 to the square mile, or about half the density in England.

**Race and Language.**—Although the modern inhabitants of Italy are, in appearance, manners, and language a distinct nation, yet they have descended from numerous and widely-different races, such as the Ligurians, Umbrians, Etruscans, Greeks, Romans, Goths, Franks, Longobards, &c. The Italian language is derived from the Latin. Of the various dialects, the Tuscan only is pure.<sup>1</sup>

**INDUSTRIES.**—The industry of Italy is both varied and considerable, but it is, on the whole, an agricultural rather than a manufacturing country. Yet there are extensive manufactures in some parts of Italy, and the amount of its foreign commerce is very large.

*Wheat, maize, olive-oil, silk, straw-plait, and wines* are among the productions of Italian industry. The culture of the vine, the olive, and the mulberry is pursued, on a scale of greater or less magnitude, throughout the country. Lombardy is especially distinguished for the mulberry, which is reared for the purpose of supplying the food of the silkworm. Tuscany is more particularly noted for its olive-oil, and also for its straw hats and straw-plait. The north of Italy—Lombardy, Piedmont,<sup>2</sup> and the Genoese provinces—constitutes its most manufacturing portion. The silks and velvets of Turin and Genoa rival those of France.

**Commerce.**—The total imports, including goods and produce in transit, amount to over 52½ millions sterling a year, while the total exports do not now exceed 35 millions a year. 60 per cent. of the imports arrive *by sea*, and 50 per cent. of the exports are despatched *by land*. The *mercantile navy* of Italy consists of about 6,500 sailing vessels, and 290 steamers.

The chief *imports* into Italy are **grain and wheat, raw cotton and cotton goods, coal, silk and silk goods, wool and woollen goods, iron and machinery, fish, timber, sugar, coffee, &c.**

The principal *exports* are **raw silk and silk manufactures, olive-oil, wines, fresh fruit, sulphur, hemp and flax, coral goods, eggs, lead and zinc ore, &c.**

**Ports.**—The six great ports of Italy are Genoa, Leghorn, Naples, Messina, Palermo, and Venice.

**Internal Communication.**—There are good *roads* in Lombardy and Sardinia, but in Central and Southern Italy they are very defective, the best being the old Roman highways. There are about 8,000 miles of *railway* open for traffic in the kingdom. The completion of the great Alpine tunnels has facilitated communication with the countries of Central and Western Europe. By the *Mont Cenis Tunnel* the railway system of Italy communicates with that of France, and by the line over the *Brenner Pass* with that of Austria. The *St. Gothard Tunnel* links the railways of Italy to those of Switzerland and Germany.

1. Dante and Boccaccio were Tuscans.

2. Piedmont, from the French *pie*, foot, and *mont*, a mountain.

**GOVERNMENT.**—The kingdom of Italy is a constitutional monarchy, the legislative power being shared between the sovereign and a Parliament of two Chambers.

The upper Chamber, the Senate, is composed of members of the royal family and eminent men recommended by the king; and the lower one, the Chamber of Deputies, is composed of 508 members elected by the people.

For a long period, in consequence of the enormous expenditure on the army and navy, the annual **Expenditure** has exceeded the **Revenue** (which amounts to about 78 millions sterling), and the **Public Debt** now amounts to about 520 millions.

**Military service is compulsory.** The **Regular Army**, on a peace footing, includes about 265,000 men, but in war time the movable and local **Militia** brings up the total strength to over 2½ millions of trained men. The **Italian Navy**, which is one of the most powerful in the world, consists of 270 war vessels, manned by about 19,000 men. Four of the ironclads (each of which cost over a million sterling) carry four 100-ton guns each, and are the most powerful men-of-war afloat. The chief naval and military port of Italy is **NAPLES**.

**Education.**—Until recent years, the lower classes of Italy were entirely illiterate, and even now the great majority of the adult population are unable to read or write. Elementary education, however, is being rapidly extended, and public government schools are now found in all parts of the kingdom. Higher education is well provided for, there being no less than twenty-one universities, eleven of which were in existence previous to 1450.

The upper classes of Italy are, and always have been, highly educated, and in the Middle Ages the arts and literature were especially cultivated. Among the great men whom Italy has produced we may note Raphael, Michael Angelo, Dante, and Canova. The fine arts are still highly esteemed, and there are important schools of music, painting, sculpture, &c., at Rome, Florence, Milan, Bologna, and other towns.

**Religion.**—*Roman Catholicism* is the State Religion of Italy, and almost all the Italians are *Roman Catholics*. There are only 62,000 *Protestants*, and about 38,000 *Jews*.

∴ Previous to the year 1860, Italy was divided politically into several States—nine in number. These were the Kingdom of Sardinia, the Kingdom of Naples and the Two Sicilies, the Lombardo-Venetian Kingdom (part of the Austrian Empire), the States of the Church, the Grand Duchy of Tuscany, the Duchy of Parma, the Duchy of Modena, the Republic of San Marino, and the Principality of Monaco. The three first named of these were the most considerable; the two last mentioned were insignificant in point of size.

The public events of the years 1859-60 resulted in the union of the greatly larger portion of Italy under a single sovereignty. Lombardy, by aid of the arms of France, was transferred from the dominion of Austria to the constitutional rule of the King of Sardinia. The insurgent populations of Tuscany, Parma, Modena, and the larger part of the then Papal States, expelled their deservedly unpopular rulers, and added themselves to the subjects of the Sardinian monarchy. The Neapolitan provinces (including the whole of Southern Italy), with the neighbouring island of Sicily, were roused to action by the patriot soldier Garibaldi, and, with the acceptance of their proffered union, the title of King of Sardinia was exchanged for that of "King of Italy."

The kingdom of Italy thus constituted included six-sevenths of the entire country. Two portions of Italy, however, were still wanting to its completeness, viz., the Venetian and the Roman territories. The year 1866 witnessed the enforced relinquishment by Austria of her dominion over Venice, which, with Lombardy, was then made Italian in a political, as well as in a physical, sense. Rome, with a small adjacent territory, a fraction of the former "States



of the Church," remained under the temporal sovereignty of the Pope until 1870, when the losses sustained by France in the war which she had provoked with Germany led to the final withdrawal of the French army (by which the Papal dominion had been sustained), and to the union of all Italy under a single ruler.

Savoy and Nice, previously part of the Sardinian monarchy, were in 1860 transferred to the rule of France, and the insignificant territory of Monaco fell, in virtue of the change, within the French border. The little town of San Marino, with a small adjacent tract (situated between the Apennines and the Adriatic), was allowed to retain its nominal independence.

**DIVISIONS.**—The kingdom of Italy is divided into 69 Provinces, which are named after the chief town in each. The old Territorial Divisions, or *Compartimenti*, 16 in number, though not now officially recognised, are better known. Four of these historic divisions are in Central Italy, five in the Northern, and five in the Southern part of the Peninsula, while Insular Italy includes two of them.

### I. NORTHERN ITALY.

NORTHERN ITALY includes five of the old territorial divisions, namely, Piedmont, Liguria, Lombardy, Venetia, and Emilia. Piedmont includes the western, Lombardy the central, and Venetia the eastern part of the great plain of Northern Italy.<sup>1</sup> Emilia includes that part of the plain which lies between the Po and the Apennines; and Liguria, or the Eastern Riviera, extends along the coast, south of Piedmont and west of Emilia.

TURIN or Torino (230), the chief city of Piedmont (and, prior to 1864, the capital for a time of the Italian kingdom), stands on the left bank of the river Po. It has important silk, woollen, and cotton manufactures, and is the great railway centre of North-Western Italy, and communicates with France through the Mont Cenis Tunnel and along the Mediterranean seaboard.

Alessandria (31), a strongly-fortified town, to the south-east of Turin, is on the river Tanaro, an affluent of the Po. Marengo, the scene of Napoleon's victory over the Austrians in 1800, is near Alessandria. Genoa (140), one of the most important among the great cities of Italy and, in former times, the rival of Venice in commerce and dominion, lies on the Mediterranean coast, at the head of the gulf called by its name. Spezia (26), to the south-east of Genoa, was formerly the chief naval station of Italy, and is still an important seaport.

MILAN (295), in the centre of the Lombard plain, and the former capital of Austrian Italy, is noted for its magnificent cathedral and its marble palaces. It stands beside the river Olona, one of the many affluents of the Po, and is the chief railway centre of the northern plain, communicating with Genoa and the Mediterranean seaboard on the south, and, through the St. Gothard Tunnel, with Switzerland and Germany on the north. It is the chief centre of the silk manufacture of Northern Italy.

Pavia (30), on the river Ticino, near its junction with the Po, is to the south of Milan. Numerous large cities, many of them famous in the records

1. The plains of Northern Italy, like those of the Low Countries, have been the frequent battlefield of nations, and abound in localities of historic fame. Marengo, Montebello, Lodi, and Arcole are among the places distinguished in

the earlier campaigns of Napoleon I. Palestro, Magenta, and Solferino have a like repute in connection with the operations of Napoleon III., in the brief campaign of 1859.

of past ages, as well as possessed of present importance, lie within this part of Italy or within the adjoining Venetian province—among them *Venice, Bergamo, Brescia, Mantua, Verona*, and many others.

**VENICE** or *Venezia* (130), stands on the shore of the Adriatic, in the midst of lagoons, in a situation well fitted for commanding, as it did in former ages, the commerce of the neighbouring waters. Canals divide its different quarters, but the city itself is accessible by the railway, which, crossing the lagoons, connects it with Milan and other places in Northern Italy, and with Florence and Rome to the south. Venice is one of the most picturesque cities in the world; and though no longer so important as it once was, the “Queen of the Adriatic” is still a busy port, with extensive *shipbuilding* yards and considerable manufactures of *glass* and *jewellery*.

**Verona** (61) is to the west of Venice, on the river Adige, and is an important fortress, as well as a great commercial city. **Padua** (47) and **Vicenza** (28) lie between Venice and Verona. **Mantua**, the birthplace of Virgil, is on the river Mincio, which, issuing from the Lago di Garda, joins the Po.

**EMILIA** comprehends the territory of the Romagna, which, prior to 1859, formed part of the Papal dominions, together with the former Duchies of Parma and Modena. **BOLOGNA** (104), the chief city of this part of Italy, lies in the plain which stretches between the Apennines and the course of the Po.

**Ferrara** (29) is near the right bank of the Po. **Parma** (45) and **Modena** (31) are also situated within the plain between the Apennines and the Po—the former on the banks of a river called by its name.

## II. CENTRAL ITALY.

**CENTRAL ITALY** includes the Roman Territory, Tuscany, the Marches, and Umbria. **Tuscany** lies on the western, and the **Marches** on the eastern, side of the Apennines; **Umbria** lies between them. **Roma**, or the Roman Territory, extends along the western coast to the south of Tuscany.

**ROME** (273), the “Eternal City,” the ancient “mistress of the world,” and, since 1870, the capital of the Kingdom of Italy, stands on the banks of the Tiber, 18 miles above its entrance into the Mediterranean. By far the larger portion of the city is on the left bank of the river; that portion, however, which contains the *Cathedral of St. Peter* and the *Vatican Palace* (the residence of the Pope) is on the right bank. This latter, which is distinguished as the “Leonine City,”<sup>1</sup> is reserved for the purposes of the Papal Court.

The area included within modern Rome is marked by the walls of the ancient city, which are still standing, but great portions of the included space is a mere wilderness of ruins. The *Coliseum*, which is beyond the populated portion of the city, is the most imposing amongst the many magnificent works of ancient art which belong to Rome.

**Civita Vecchia**, forty miles to the north-west of Rome, serves as the port of that city.

1. From Leo X., who filled the Papal throne in the completion of St. Peter's, with other public the early part of the 16th century, and by whom works, was accomplished.

**FLORENCE** or *Firenze* (135), the capital of Tuscany, was for some time (1864-70) the political, as it has always been the intellectual, capital of Italy. Florence, "The Beautiful," perhaps the most enchanting of Italian cities, is situated, amidst the most charming scenery, on the banks of the river *Arno*, and is famous for its rich collections of *works of art*, and as the birthplace or residence of many great men, among them *Dante*, *Michael Angelo*, *Amerigo Vespucci*, *Galileo*, and *Savonarola*. It is also a great industrial centre, and is in direct communication by rail with all the chief cities of Northern and Peninsular Italy. *Silk, jewellery* and *works of art* are the chief industrial products of the modern Florentines.

**Leghorn** or *Livorno* (80), on the coast of Tuscany, is the port of Florence, and one of the chief seats of Italian commerce in *corn, wine, olive oil*, and *straw plait*. **Pisa** (38), on the river *Arno* a few miles above its mouth, where *Galileo*, the famous astronomer, was born in 1564, has a great name in mediæval history, and is famed for its *leaning tower*, 170 feet high, and 13 feet off the perpendicular. **Ancona** (31) is a military station and trading centre on the Adriatic. Near **Carrara** are the famous *marble quarries*, whence the finest statuary marble in the world is obtained. The little Republic of **San Marino** is on the northern border of the *Marches*.

The province of **UMBRIA**, lying between Tuscany and the *Marches*, is an inland region. **Perugia** (20), its chief city, is near the right bank of the *Tiber*, within the upper portion of that river's course.

### III. SOUTHERN ITALY.

**SOUTHERN ITALY** includes the *Campania*, *Abruzzi* and *Molise*, *Apulia*, *Basilicata*, and *Calabria*. The *Campania* includes the district between the *Apennines* and the western coast; the **Abruzzi** and **Molise** division lies between the "back-bone of Italy" and the Adriatic coast. **Apulia** includes the extreme south-eastern extension of the peninsula, and **Calabria**, the south-western "limb." **Basilicata** lies between these two divisions.

**NAPLES** or *Napoli* (463), the capital of the former Kingdom of Naples and the Two Sicilies, is the largest city of Italy. It lies on the shore of the beautiful Bay of Naples, only a few miles distant from the foot of Mount *Vesuvius*. The disinterred cities of *Pompeii* and *Herculaneum*, buried eighteen centuries ago (A.D. 79), under the ashes ejected from the mountain, are beside the shore of the bay. Naples is the chief military and naval station of Italy, and is also an important centre of commerce.

Few of the other cities of Southern Italy are of any considerable size. Among the more noteworthy are *Foggia*, *Bari*, *Salerno*, *Gaeta*, *Capua*, *Taranto* (the ancient *Tarentum*), and *Brindisi* (the ancient *Brundisium*). *Gaeta* and *Salerno* are on the *Mediterranean coast*; *Bari* and *Brindisi*<sup>1</sup> are on the *Adriatic shore*; and *Taranto* is at the head of the gulf called by its name. *Foggia* and *Capua* are inland.

### IV. INSULAR ITALY.

**INSULAR ITALY** includes the islands of *Sicily* and *Sardinia*. *Sicily* is, in parts, as fertile and densely-peopled as the northern plains, but *Sardinia* is neither as populous nor as advanced as the other provinces of Italy.

1. *Brindisi* is an important packet station on the direct route to *India* via the *Suez Canal* and the *Red Sea*.

**PALERMO** (206), the largest city of Sicily, is on the north coast of the island. **Messina** (78) is at its eastern extremity, beside the strait which bears its name.

Of the other towns of Sicily, **Catania** lies at the foot of Mount Etna, on the east coast; **Siracusa** (the ancient *Syracuse*) is on the same coast, to the southward; **Trapani** and **Marsala** are seaports at the western extremity of the island, the latter is famous for its *wines*.

**SARDINIA** is neither as populous nor as advanced as the other provinces of Italy. **CAGLIARI** (36), the chief city of Sardinia, lies at the head of a bay near the southern extremity of the island. **Sassari** (32) is a thriving town near the north-western coast. Both Cagliari and Sassari are university towns.

The Colonies and Dependencies of Italy are all on the eastern side of Africa.

They include **Massowa** and **Assab Bay** and the adjoining coast territory on the Red Sea, which together form the province of *Eritrea*; the Sultanate of **Obbia**, on the Somali Coast, and the rest of this coast to the mouth of the **Juba River**. The whole of **Abyssinia** and **Shoa** are included in the Italian "sphere of influence," and are virtually Italian Protectorates.

#### QUESTIONS ON ITALY.

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| <ol style="list-style-type: none"> <li>1. How is Italy bounded? What are its dimensions?</li> <li>2. Name the gulfs, bays, and straits which belong to the Italian coasts.</li> <li>3. Where are Cape Spartivento, Cape di Leuca, the Lipari Islands, Elba, and Malta? Point to each on the map.</li> <li>4. To what nation does Malta belong? What is its chief town called?</li> <li>5. What mountains belong to Italy? Which among them are active volcanoes, and where are they situated?</li> <li>6. Describe briefly the chief rivers of Italy.</li> <li>7. Enumerate the principal lakes. Which of the number belong to the Alpine region? Which to Central Italy?</li> <li>8. What kind of climate has Italy? What parts of the country exhibit an exception to its general attributes in this regard?</li> <li>9. Mention some of the chief productions of Italy in the vegetable and mineral kingdoms.</li> <li>10. For what articles of industrial produce is Italy chiefly noted? Which portion of the country is especially distinguished for its silk?</li> <li>11. What are the means of inter-communication?</li> </ol> | <ol style="list-style-type: none"> <li>12. Under what form of government is Italy?</li> <li>13. Give a few particulars relative to (a) education and (b) religion.</li> <li>14. Into what States was Italy formerly divided? Point out their places on the map.</li> <li>15. Name the chief towns, respectively, of Piedmont, Sardinia, Tuscany, and Emilia.</li> <li>16. What city forms the capital of the kingdom of Italy, and how is it situated?</li> <li>17. Point to the following upon the map:—Venice, Genoa, Spezzia, Leghorn, Civita Vecchia, and Ancona.</li> <li>18. On what rivers are Pavia, Verona, Mantua, Turin, Florence, Pisa, and Rome?</li> <li>19. Where are the provinces of the Romagna and Umbria? What are the names of their chief cities?</li> <li>20. In what parts of Italy are Bologna, Milan, Ferrara, San Marino, Taranto, and Brindisi?</li> <li>21. In what parts of Italy are Gaeta, Salerno, Messina, Catania, Siracusa, and Marsala?</li> <li>22. What cities of Italy are particularly distinguished for their works of art and their remains of antiquity?</li> <li>23. Where are the Colonies and Dependencies of Italy? Name them.</li> </ol> |
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#### SPAIN.

**SPAIN** is an extensive country in the south-west of Europe. It includes the greater part of a peninsula which lies between the Mediterranean Sea, the Atlantic Ocean, and the Bay of Biscay. The western and smaller portion of this peninsula forms the Kingdom of Portugal.

**BOUNDARIES.**—Spain is bounded on the *north* by France and the Bay of Biscay; on the *west*, by the Atlantic Ocean and the kingdom of Portugal; on the *south-west*, by the Atlantic; on the *south* and *east*, by the Mediterranean Sea.

**EXTENT.**—In point of size, Spain is more than three times larger than England and Wales, and nearly as large as France—its area being 191,000 square miles, or including the Canary and Balearic Islands and the “Presidios” (Ceuta, &c.), in North Africa, 197,000 square miles.

A straight line from Cape Tarifa, on the south, to the mouth of the river Bidassoa, on the French frontier, measures 550 miles. The distance between the extreme westerly point, Cape Finisterre, and the most easterly, Cape Creuse, is 640 miles.

**COASTS.**—The coast-line of Spain is much less varied than the coasts of Italy or Greece, and the Spanish Peninsula has a more solid shape than belongs to either of those countries. The external contour of the land is less indented, and its central parts are, consequently, further removed from the sea than is the case in either the Italian or the Grecian peninsulas.

The coast-line of Spain is 1,317 miles in length, of which 605 miles are formed by the Atlantic and 712 miles by the Mediterranean.

**Capes.**—The principal *Capes* are:—Capes Ortegale and Finisterre,<sup>1</sup> both on the north-west coast of Spain, on the side of the Atlantic; Cape Tarifa, on the northern side of the Strait of Gibraltar, *the most southwardly point of the European continent*; Cape Trafalgar, a short distance to the north-west of Cape Tarifa, on the Atlantic coast; Europa Point, the extreme southern point of the Rock of Gibraltar;<sup>2</sup> and Cape Creuse, on the Mediterranean coast, at the eastern extremity of the Pyrenees.

**ISLANDS.**—The *Balearic Islands*,<sup>3</sup> in the Mediterranean, and the *Canaries*,<sup>4</sup> in the Atlantic Ocean off the coast of Africa, belong to Spain. Both the Balearic and Canary Isles are politically considered part of the home country, and form two of the modern provinces into which the kingdom is divided.

1. The Balearic Islands are five in number, viz., Majorca, Minorca, Iviza, Formentera, and Cabrera. *Population*, 312,000. Majorca has an area of 1,360 square miles, and Minorca, 280 square miles. The former is hilly, but the latter is, for the most part, level. All the islands are generally fertile, and produce corn and fruit. The chief towns are *Palma* (60), the capital, *Iviza*, and *Mahon*.

2. The Canary Islands are situated in the Atlantic Ocean, about 60 miles off the west coast of Africa. *Population*, about 300,000. The largest islands are Teneriffe and Gran Canaria. On the north-east side of the latter is *Gran Palmas*, the capital of the group. The Canaries are mountainous and volcanic, and culminate in the volcano *Pico de Teyde*, better known as the “Peak of Teneriffe,” in Teneriffe, 12,185 feet above the sea-level. The last eruption took place in 1798.

**MOUNTAINS.**—Spain is crossed by several mountain chains, which stretch through the country in the direction of east and west.

1. Finisterre, Lat. *Asia*, the end, and terra, land. *Of our Land's End.*

2. Gibraltar, *Jebel Tarik*, Tarik's mountain. Tarik, one of the Moorish chiefs, built a fortress on the rock, hence its name.

3. Balearia, Gr. *Bellee*, I throw; the natives were formerly famous for their skill in “alinging.”

4. Canaries, dog islands, Lat. *canis*, a dog.

These are the Pyrenees, the Cantabrian Mountains, the Mountains of Castile, the Mountains of Toledo, the Sierra<sup>1</sup> Morena, and the Sierra Nevada.

1. The **Pyrenees** are on the border of France and Spain. They have an average elevation of 8,000 feet, but a score of summits rise 2,000 feet above this. The highest point is *Pic de Nethou* or *Maladetta*, 11,421 feet.

2. The **Cantabrian Mountains** extend westward from the Pyrenees along the shores of the Bay of Biscay, and terminate in Cape Finisterre.

3. The chains of the **Castilian Mountains**, the **Mountains of Toledo**, and the **Sierra Morena** are in the interior of Spain. Their direction is best marked out by observing on the map the different river basins which they divide. Thus the Mountains of Castile separate the basins of the Douro and the Tagus; the Mountains of Toledo lie between the Tagus and the Guadiana; and the Sierra Morena, between the Guadiana and the Guadalquivir.

4. The interior of Spain, from the Cantabrian Mountains to the chain of the Sierra Morena, forms a high tableland, which has an elevation of 2,000 feet above the sea. Many parts of this tableland have an arid surface.

5. The **Sierra Nevada** are in the south of Spain, near the Mediterranean coast. The culminating point is *Mulhacen*, which attains an elevation of 11,151 feet, and is the highest summit in the peninsula, south of the Pyrenees.

**RIVERS.**—The rivers of the Spanish peninsula have the same general direction as its mountain chains, that is, east and west. They are the *Minho*, *Douro*, *Tagus*, *Guadiana*, and *Guadalquivir*, all of which flow west, and discharge into the Atlantic; with the *Ebro*, *Jucar*, and *Segura*, which have eastwardly courses and enter the Mediterranean. The *Minho*, in the lower part of its course, forms the boundary between Spain and Portugal.

1. The **Douro**<sup>2</sup> drains north-central Spain, and has a course of 460 miles, only 75 of which (within Portugal) are navigable. Its basin (39,000 square miles in area) is bounded on the north by the Asturian Pyrenees, and on the south by the Sierra Guadarrama.

2. The **Tagus** (510 miles long) is the longest river of the peninsula: 190 miles of its lower course is in Portugal. It drains that portion of the central tableland that lies between the Castilian Sierras and the Mountains of Toledo. A part of its lower course only is navigable, and its estuary, which forms a fine harbour, varies from 2 to 7 miles in width.

3. The **Guadiana**, at a distance of 10 miles from its source, disappears, and for 14 miles flows underground, re-emerging in the two small lakes called *Los Ojos de la Guadiana*.<sup>3</sup> This river drains the tract lying between the Mountains of Toledo and the Sierra Morena, but is only navigable for the last 40 miles of its course.

4. The **Guadalquivir**<sup>4</sup> drains the plain between the Sierra Morena and Sierra Nevada, and is navigable below Cordova. Total length, 290 miles.

5. The **Ebro** (420 miles long) drains north-eastern Spain. Its current is rapid and its navigation consequently difficult.

**CLIMATE.**—The climate of Spain exhibits great varieties. The north is temperate; the middle parts are liable to great extremes of heat and cold—parched in summer by intense heat, and piercingly cold in winter; the south and south-east are hot, like the countries of Southern Europe in general.

1. *Sierra*, usually supposed to be derived from the Lat. *serris*, a saw, in allusion to the notched or saw-like appearance of the crests of the ridges so named. But it is more probable that the term is connected with, if not directly derived from, the Arabic *serrah*, meaning waste land.

2. Douro, of Welsh der, water.

3. i. e., the Eyes of the Guadiana.

4. Guadalquivir, Arabic, *wady-el-keber*, the "great river."

The extremes of temperature which belong to Central Spain result from its elevated and exposed character. Madrid, which stands at an elevation of 2,000 feet above the sea, is at once among the hottest and coldest localities in Europe. In many parts of the interior plateau, the rains are scanty and irregular.

**PRODUCTIONS.**—The natural productions of Spain are varied and valuable, but the deficiency of means of communication has hitherto hindered the development of its vegetable and mineral wealth.

1. The domestic animals include *sheep* (merino), *goats*, *mules*, and *camels*. Among the wild animals the *wolf*, *bear*, and *chamois* are found in the Pyrenees, the *wild bull* in Andalusia, and the *ape* on the rock of Gibraltar.

2. The vegetation is as various as the climate. In the north, on the shores of the Bay of Biscay, the fruits common to the south of England flourish. In the south and south-east, along the Mediterranean coasts, the foliage is evergreen, and the fruits are such as belong to southern lands. The *orange*, *lemon*, *citron*, and *fig* are here abundant; the *sugarcane* thrives, and the rich foliage of the *banana* and other tropical fruits is seen beside the groves of *myrtle*, *oleander*, and *Indian fig*.

3. The mineral wealth of Spain is very great. The *quicksilver* mines of Almaden (on the north slope of the Sierra Morena) are among the richest in the world. The *lead* mines are also of great value. *Silver*, *iron*, *copper*, *zinc*, and *tin* occur in various parts of Spain, and valuable *marbles* and *building-stones* abound.

**INHABITANTS.**—Spain is one of the least populous among European countries, its population being only 17½ millions, a smaller number in proportion to its size than that of many other countries which are inferior in natural wealth, being on an average only 90 persons to the square mile.

There are fewer foreigners in Spain than in any other European country—only 25,000 in all. The *Basques* number 440,000, and there are 60,000 *Morescoes* in the south, 50,000 *Gipsies*, and a small number of *Jews*.

**Race and Language.**—The Spaniards are the descendants of the old Celtic Iberians, largely intermingled, however, with Phœnician, Roman, Gothic, and Moorish elements. The Spanish language is of Latin origin, and was at one time much more like the Portuguese than at present. The *Basques* of the north-east are the descendants of the aboriginal Iberians, and still speak the old Celtic language.

**INDUSTRIES.**—The pursuits of industry are not generally flourishing in Spain, which country exhibits, in nearly every regard, a great decline from its condition at a former period. *Agriculture* is less an object of national pursuit than the rearing of sheep, immense numbers of which are bred upon the extensive pasture-grounds of the interior. The *silk manufacture* flourishes at Valencia and other places on the Mediterranean coast. Some *woollen* and *linen* fabrics are also made, and *leather* is extensively prepared. Spain, however, is not generally a manufacturing country.

**Commerce.**—The chief articles of produce which Spain exchanges for the manufactures of other lands are *wines*, *fruits* (raisins, oranges, figs, &c.), *wool*, *salt*, *barilla*, *quicksilver*, *lead*, and *cobalt*; with *leather*, *olive*

*oil*, and *cork-wood*. The foreign trade carried on both with France and England is considerable. The sherry wines so largely consumed in the latter country are the produce of the south-west of Spain, in the vicinity of Cadiz.

The total value of the imports into, and exports from, Spain and her Colonies amounts to over 70 millions sterling a year—imports, 34 millions; exports, 35½ millions sterling. The principal *ports* are Barcelona, the "Liver-pool" of Spain, Cadiz, Seville, Valencia, Alicante, Cartagena, Malaga, Gijon, Bilbao, and Santander.

**Internal Communication.**—The numerous mountain chains render communication between the different parts of the country naturally difficult, and the roads are worse than those of any other European country. The larger towns in nearly all the provinces are now, however, connected by railways, of which over 6,000 miles are open for traffic.

**GOVERNMENT.**—The government of Spain is a constitutional monarchy; the executive resting in the King, and the power to make laws in the *Cortes*, or Parliament, with the King.

The *Cortes* is composed of the *Senate*, the members of which are nominated, or are senators by right, and the *Congress*, elected by the people. Both Houses of the Spanish Parliament are equal in authority.

No accounts of the actual revenue and expenditure of the kingdom have been issued in recent years. The *Revenue* and *Expenditure* are each supposed to amount to about 800 million pesetas or 80 millions sterling, while the *Public Debt* amounts to nearly 251 millions.

The *Army* numbers about 100,000 men on the peace footing, which can be raised in case of necessity to 870,000 men. The *Navy* consists of 230 war vessels, of which 7 are *ironclads*.

**EDUCATION.**—Until recently, the mass of the people were totally illiterate, and even now probably 60 per cent. cannot read. Higher education is provided for in 58 public colleges and 10 universities.

There are now about 80,000 public and private primary schools, but the instruction is very inefficient, and the teachers are wretchedly paid, the salaries averaging £10 to £20 a year! The total sum spent on primary education, in 1891, was about £100,000.

**RELIGION.**—The Spanish people, with the exception of about 30,000 Protestants, Jews, &c., are uniformly followers of the Church of Rome. Protestants are allowed to meet privately, but are forbidden to make any public announcement.

**DIVISIONS and TOWNS.**—The present division of Spain is into 49 provinces. But the older division into 13 provinces—some of them formerly separate kingdoms—is more generally followed; and (as in the like case of the earlier divisions of France) the names of these provinces are inseparably connected with the historic records of the country.

The following table shows the older Divisions of Spain, with their chief towns. The present "Provincias" (with three exceptions—the Basque Provinces) bear the names of their respective chief towns.



Divisions.	Provinces and Chief Towns.	Divisions.	Provinces and Chief Towns.
<b>New Castile</b> .	Madrid, Toledo, Almaden.	<b>Extremadura</b>	Badajoz, Merida.
<b>Old Castile</b> .	Burgos, Valladolid, Santander.	<b>Andalusia</b> .	Seville, Cadiz, Jerez, Cordova, Granada, Malaga, Almeria.
<b>Leon</b> . . .	Leon, Salamanca, Ciudad Rodrigo.	<b>Murcia</b> . . .	Murcia, Cartagena.
<b>Asturias</b> . .	Oviedo, Gijon.	<b>Aragon</b> . . .	Saragossa, Teruel.
<b>Galicia</b> . . .	Corunna, Ferrol, Vigo, Santiago de Compostella.	<b>Catalonia</b> . .	Barcelona, Tarragona.
		<b>Valencia</b> . . .	Valencia, Alicante.
		<b>Navarre</b> . . .	Pamplona.
		<b>Biscay</b> . . .	Bilbao, Tolosa, Vitoria.

The Biscay Division includes the three **Basque Provinces of Viscaya** (capital, Bilbao), *Guspuzcoa* (Tolosa), *Alava* (Vitoria). The *Baleares* Division includes the islands of **Majorca** (chief town, Palma), **Minorca** (Mahon), and **Iviza** (Iviza).

**MADRID** (472), the capital of Spain, lies in the centre of the peninsula, beside the stream of the Manzanares, a tributary of the Tagus, in the midst of an arid plain, which is upwards of 2,000 feet above the level of the sea. The royal palace of the Escorial, built by Philip II., is to the north-west of the capital, at the foot of the Mountains of Castile.

**Toledo** (15), an ancient city to the south-west of Madrid, is on the Tagus. **Talavera**, also on the Tagus, lower down its stream, is famous for the victory gained in 1809 by the British over the French army.

**Burgos** (31), the capital of Old Castile, is on the Arlanzon, one of the small tributaries of the Douro. **Santander** is a port on the Bay of Biscay.

**Oviedo** (43) is the capital of Asturias, and has **Gijon** for its port.

**Bilbao** (51) is the chief port of the Basque Provinces.

**Valladolid** (62), the chief city of Leon, and the former capital of the Spanish monarchy, is within the valley of the Douro, at the junction of the two smaller affluents of that river. **Salamanca**, once famous for its university, is on the river Tormes, which joins the Douro. **Ciudad-Rodrigo** is to the south-west, near the Portuguese frontier. **Badajoz**, the chief city and fortress of Extremadura, is on the Gadiana, and closely adjoins the border-line between Spain and Portugal.

**ANDALUSIA**, the southwardly division of Spain, includes a greater number of large cities than any other portion of the kingdom. It was here that the Moors longest maintained their ground against the advancing tide of Christian warfare and conquest. **Cordova**, **Seville**, **Granada**, and **Jaen**, among the cities of Andalusia, were formerly the capitals of Moorish kingdoms; and the architectural glories of the Alhambra yet tell of the splendours amidst which the Moorish kings of Granada maintained their court.

**Seville** (143), now chiefly noted for its extensive trade in oranges, stands beside the river Guadalquivir. At the mouth of that stream is **San Lucar**, the port whence (in 1519) Magellan sailed on the first voyage of circumnavigation round the globe. **Palos**, a small port to the westward, at the mouth of the little river Tinto, is yet more noteworthy in the annals of discovery, as Columbus sailed thence, in 1492, on the great voyage in which he discovered the New World.

**Cadix** (62), one of the chief seaports of Spain, is at the northern extremity of an island which immediately adjoins the Spanish coast. The town of **Jerez de la Frontera** or **Xeres** (62), whence the name of "sherry"

is derived, is in the midst of the wine district, to the north-east of Cadiz. The name of Cape Trafalgar, to the south-east of Cadiz, recalls the memory of Nelson's great victory in 1805.

**Cordova** (56), greatly decayed from its former splendour, is on the Guadalquivir, in the middle portion of its course. **Granada** (73) stands in a beautiful plain at the northern foot of the Sierra Nevada, beside the little stream of the Darro, which falls into the Jenil, one of the chief affluents of the Guadalquivir. **Malaga** (134) is a flourishing port on the southern coast. **Malaga** and other towns in Andalusia suffered severely during the terrible earthquake of 1884.

The town of **Murcia** (98) is on the river Segura, on the eastern side of the kingdom. **Cartagena** (84) is on the coast of the same province. **Alicante**, also on the Mediterranean coast, is to the northward. **Valencia** (171), still further north, is a short distance inland; it has flourishing silk manufactures and extensive trade.

**Barcelona** (272), situated on the coast of Catalonia, commands the Mediterranean trade of Spain, and is the second city of the kingdom in amount of population. **Saragossa** (92), the chief city of Aragon, on the river Ebro, is noteworthy for its memorable sieges in 1808-9, during the Peninsular war. **Pamplona**, in the Navarre, is a strong fortress, not far distant from the Pyrenees. **San Sebastian**, a strongly fortified port on the Bay of Biscay, near the French border, was stormed by the British in 1813, after a memorable siege.

**Santiago**, the chief city of Galicia, like many other of the cities of Spain, has greatly decayed from its former importance. **Corunna** and **Ferrol**, on the coast of this province, are at the opposite extremities of an extensive bay; but **Vigo**, on a fine bay further south, has of late outstripped them in commercial importance.

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**COLONIES.**—The present colonial possessions of Spain are but a small fragment of those she formerly owned. Of her immense possessions in America, the islands of Cuba and Porto Rico alone remain. The possessions still claimed by Spain in various parts of the world have, however, an *area* of over 400,000 square miles, and a *population* of 12 millions.

The Spanish Colonies include, besides the *Canary Islands*, the islands of **Fernando Po** and **Annobon**, off the West African coast; **Cuba** and **Porto Rico**, in the West Indies; the **Philippine Islands** and the **Sulu Islands**, in the East Indies; and the **Marianne** or **Ladrones**, **Caroline**, and **Pelew Islands**, in the Pacific Ocean. **Ceuta**, on the African coast, opposite Gibraltar, with **Tetuan** on the same line of coast, further to the east, together with **Corisco Bay**, and other small settlements on the coast of Lower Guinea, and the "Protectorate" over the **Saharan Coast** between Capes Bojador and Blanco—*coast-line* of about 500 miles—also belong to Spain.

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**ANDORRA**, a small republic in the eastern Pyrenees, has an *area* of about 175 square miles, and a *population* of 6,000.

The independence of this little State, which is under the joint protection of France and the Spanish Bishop of Urgel, was granted by the Emperor Charlemagne as an acknowledgment of the services rendered by its inhabitants during the wars with the Moors.

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**GIBRALTAR**, in the extreme south of Spain, is a possession of the British Crown. It was captured by an English squadron in 1704, and has ever since been retained in British possession.

The town of **Gibraltar** occupies the western declivity and base of a lofty rock, which advances a length of four miles into the sea, and terminates to the southward in Europa Point. A narrow and sandy isthmus connects this rock with the mainland of Spain. The natural strength of Gibraltar is increased by extensive fortifications, and a numerous garrison is maintained there. The position of Gibraltar, at the entrance of the Mediterranean, renders it of great importance as a naval station. The resident *population* numbers about 20,000, exclusive of the garrison of between 5,000 and 6,000 men.

## PORTUGAL.

**PORTUGAL**<sup>1</sup> is a small country in the south-west of Europe. It lies on the western side of the Spanish peninsula, and is thus the most westerly portion of continental Europe.

**BOUNDARIES.**—Portugal is bounded on the *north* and the *east* by Spain; and on the *south* and the *west* by the Atlantic Ocean.

The frontier-line towards Spain is mostly artificial, the only natural boundaries being portions of the courses of the Minho on the north, and the Douro, Tagus, and Guadiana<sup>2</sup> on the east.

**EXTENT.**—Portugal has an area of 34,600 square miles, or nearly three-fifths that of England and Wales, and less than one-sixth the size of Spain.

The *greatest length*, from north to south, is 360 miles. The *mean breadth*, from east to west, is 100 miles. Madeira<sup>3</sup> and the Azores,<sup>4</sup> which together have an area of 1,200 square miles, also belong to Portugal.

**COASTS.**—The coast-line of Portugal belongs wholly to the Atlantic, and measures about 500 miles, equivalent to 1 mile of coast to every 73 square miles of area. With the exception of the Bays of Lisbon and Setubal, the Portuguese coast is remarkably regular and unbroken, and, with one exception, deficient in good harbours.

1. **Capes.**—The principal are *Cape Roca*<sup>5</sup> and *Cape St. Vincent*. Cape Roca is the most westerly point of the European continent; Cape St. Vincent is its south-western point. Both are high and rocky, and form the seaward extremities of the Serra<sup>6</sup> d'Estrella and Serra de Monchique (or Malhao) respectively.

2. **Inlets.**—It includes two fine bays, the *Bay of Lisbon* (a magnificent natural harbour formed by the estuary of the Tagus), and the *Bay of Setubal*. The latter is lined by vast salt marshes, beyond which stretches the extensive plain of Estremadura.

**MOUNTAINS.**—Portugal is, physically, a continuation of Spain. Its mountains consist of portions of the long chains which cross the Spanish peninsula from east to west, and terminate in the latter direction on the shores of the Atlantic.

The highest elevations of Portugal are found in the Serras situated between the Douro and the Tagus, of which the principal is the *Serra d'Estrella* (7,524

1. Portugal, Lat. *Portus Cale*, "the port of Cale" (the modern Oporto) at the mouth of the Douro. The old name of the country was *Lusitania*. From 1580 to 1640, Portugal was subject to Spain.

2. Guadiana. From the Arabic *wady*, river, and *Assa*, the ancient name.

3. Madeira, wood or timber.

4. Azores, Portuguese, *acor*, a hawk. When first discovered, hawks were very numerous in these islands, hence the name.

5. Roca, a rock; also called the Rock of Lisbon.

6. Serra is the Portuguese form. The Spanish equivalent is *Sierra* (see footnote, p. 162).

feet above the sea), a portion of the long chain which stretches across the peninsula from north-east to south-west and terminates in Cape Roca. The Spanish Mountains of Toledo are prolonged south through the province of Alemtejo. The southern coast of Portugal is bordered by the *Serra Monchique*, which terminates in Cape St. Vincent.

**RIVERS.**—The principal rivers of Portugal are the Minho, Douro, Mondego, Tagus, and Guadiana, all flowing into the Atlantic. Only one of the number, the *Mondego*, is wholly Portuguese. The four others have the larger portion of their courses in Spain.

The *Minho* forms part of the northern frontier of Portugal; the *Douro*, *Tagus*, and *Guadiana* form portions of its eastern boundary. The last 120 miles of the *Douro* are entirely within Portugal, of which it drains an area of 7,500 square miles, or about a fifth part of its total area. The *Tagus* is navigable to Albrantes, a distance of 90 miles from the sea; and its estuary, which varies in width from two to seven miles, forms the splendid Bay of Lisbon, one of the most magnificent natural harbours in the world. The *Guadiana* is navigable only for thirty miles from the sea. Owing to the broken nature of the country, the rivers are generally rapid and run in deep channels. They are, consequently, for the most part but little available for either navigation or irrigation.

**CLIMATE.**—The climate of Portugal is warm and equable. This latter quality is due to its maritime position. Lisbon, its capital, exhibits remarkably little variation of temperature throughout the year, and thus presents a remarkable contrast to Madrid, which is subject to great extremes of heat and cold.

**Rainfall.**—The district of Coimbra is one of the wettest places of Europe, the rainfall exceeding 200 inches annually. The annual rainfall at Madrid only amounts to ten inches. Snow falls on the hills north of the *Tagus* in winter, but it is never seen along the southern coast districts.

**PRODUCTIONS.**—The vegetable productions of Portugal resemble those of the south and south-east coasts of Spain. The *vine* and the *olive*, the *orange*, *lemon*, *citron*, *almond*, *fig*, and *myrtle* abound. There are large forests of *oak*, *chestnuts*, and *cork*. The mineral resources of the country comprehend *copper*, *lead*, and numerous other metals, very few of them, however, being worked.

**INHABITANTS.**—Portugal contains upwards of 4½ million inhabitants, an average of 123 to the square mile, exclusive of the Azores and Madeira, which together have a population of 400,000.

**Race and Language.**—The Portuguese are of the same origin as the Spaniards, and speak a dialect of the same language, which, however, differs considerably from the present Spanish tongue. But, in spite of a common origin and similar languages, there is much antipathy between the Portuguese and the Spaniards.

**INDUSTRIES.**—Every branch of industry is in a backward condition, and the abundant natural resources which the country possesses are turned to comparatively little account.

The most important branches of labour are in connection with the wine trade. The *port wines*, so largely consumed in England and elsewhere, are derived from Oporto, at the mouth of the *Douro*, and are the produce of the wine-district of the Alto-Douro—that is, the upper portion of the river, within the Portuguese frontier.

Portugal has few manufactures. Her foreign trade consists chiefly in the export of *wines*, with *lemons*, *almonds*, and other *fruits*. The average value of wine exported from Portugal to the United Kingdom alone is over £1,000,000.

**Ports.**—The principal are Lisbon, Oporto and Leixoes,<sup>1</sup> and Setubal.

**Internal Communication.**—The mountainous nature of the country and the wretchedly constructed *roads* greatly obstruct inland communication. There are, however, 1,334 miles of *railway* open for traffic.

**GOVERNMENT.**—The kingdom of Portugal is a hereditary and limited monarchy.

The legislative, and to some extent, the executive, power is vested in the *Cortes*, which is composed of two Chambers—the House of Peers, and the House of Commons.

The national *Income* has for many years been considerably less than the *Expenditure*, which amounts to about 9½ millions a year, while the *Public Debt* amounts to 137 millions sterling, or £30 per head of the population.

The *Army*, service in which is compulsory, numbers 32,000 men, exclusive of nearly 9,000 artillery and infantry employed in the colonies. The war strength is about 150,000 men. The *Navy* consists of 40 steamers (including one *ironclad*) and 16 sailing vessels, manned by about 3,500 men.

**EDUCATION.**—Public education is in a very backward state, although entirely under the control of a government Council of Education. There is only one university, that of Coimbra (founded in 1290), attended by nearly a thousand students.

Although the principle of compulsory attendance was adopted in 1844, the law has never been properly enforced, and consequently the percentage of children attending school is very low; but much progress has been made within the last few years.

**Religion.**—The Roman Catholic religion is almost uniformly followed, but other modes of worship are tolerated. There are only about 500 Protestants, mostly foreigners, in the country.

**DIVISIONS and TOWNS.**—Portugal includes the following 6 provinces, which are divided for administrative purposes into 17 districts, named after the chief towns in each.

Provinces.	Districts and Chief Towns.
Estremadura, <sup>2</sup>	Lisbon, Santarem, Leiria.
Alentejo, <sup>3</sup>	Portalegre, Evora, Beja.
Beira,	Aveiro, Vizeu, Coimbra, Guarda, Castello Branco.
Tras-os-Montes, <sup>4</sup>	Villa Real, Braganza.
Entre Douro e Minho, <sup>5</sup>	Vianna, Braga, Oporto.
Algarve, <sup>6</sup>	Faro.

∴ The Azores and Madeira are also regarded as integral portions of the Kingdom.

1. The new harbour at Leixoes, three miles to the north of Oporto, is the only place of refuge on the coast between Vigo and the port of Lisbon.

2. Estremadura, the extreme boundary.

3. Alentejo, beyond the Tagus.

4. Tras-os-Montes, beyond the mountains.

5. Entre Douro e Minho, between the Douro and Minho.

6. Algarve, Arabic, *el gharb*, the west.

**LISBON**<sup>1</sup> (250) and **Oporto** (105) are the only two great cities which Portugal contains, and divide between them nearly the whole of its commerce. Oporto is the chief seat of the wine trade, Lisbon that of the more general foreign trade.

**Lisbon**, the capital of Portugal, stands on the north side of the Tagus, upon the estuary which that river forms at its entrance into the sea. The mouth of the Tagus forms one of the finest of natural harbours. The climate of Lisbon is very healthy, and is much resorted to by invalids from the more northerly countries of Europe, especially those afflicted with pulmonary complaints. Oporto, the second city in the kingdom, is situated on the Douro, a short distance above its mouth.

**Braga** (20), **Coimbra** (18), and **Setubal** (15), come next in order of size.

**Braga** is the ecclesiastical capital of Portugal, and has also some manufactures. **Coimbra**, on the river Mondego (nearly midway between Oporto and Lisbon), is the seat of the only Portuguese university, founded in 1290. **Setubal**, or **St. Ubes**, is situated on a bay called by its name, to the south-east of Lisbon. Its chief trade consists in the export of salt, derived by evaporation from the adjacent shores.

∴ *Vimiera*, the scene of a victory gained by the English in 1808, is a small town to the northward of Lisbon; and *Torres Vedras*, rendered famous by the well-known lines of defence constructed by Wellington in 1810, is in the same direction, nearer to the capital. *Cape St. Vincent*, in the south-west of Portugal, gives its name to the naval victory gained by the English in 1797.

Besides the seven divisions given in the table on the preceding page, the **Azores** and **Madeira** are considered parts of the home country, and, unlike the other colonial possessions of Portugal, are directly represented by deputies in the Cortes.

1. The **Azores** are situated in the Atlantic Ocean, due west from the coast of Portugal, and are reckoned to belong to this division of the globe, though too far distant from the shores of the mainland to be shown upon the maps of Europe. They consist of a group of nine islands, the largest of which is named **St. Michael**, and the next in size, **Terceira**. The total area is officially estimated at 966 square miles, and the population at 260,000. The island of **St. Michael** furnishes great numbers of oranges, which (with some corn) are the chief articles of export. The town of *Angra* (13), on **Terceira**, is the capital of the group. But *Ponte Delgada* (17), on the south side of **St. Michael**, is commercially far more important.

2. **Madeira** is a beautiful and fertile island in the Atlantic Ocean off the north-west coast of Africa, 290 square miles in area,<sup>2</sup> and measuring 35 miles in the direction of its length. It is mountainous, and wholly of volcanic formation, consisting of a mass of basaltic rock. The highest point in the island reaches upwards of 6,000 feet above the sea. The climate of **Madeira** is particularly celebrated. The air is almost uniformly warm, exhibiting remarkably little variation in its temperature throughout the year. The vegetation is rich and luxuriant in the extreme, the fruits and evergreens of southern Europe growing over all the moderately-elevated portions

1. Lisbon was almost entirely destroyed by the earthquake of 1755, when 60,000 persons perished. | 2. About twice the size of the Isle of Wight.

of the island, and the palm and banana thriving in the lower plains. The vine was long cultivated in Madeira on a scale of great extent, and furnished the chief produce of the island; but it was completely destroyed by disease, and great suffering was thence occasioned to the inhabitants. The culture of the sugar-cane was then introduced in its stead. The chief town of the island is *Funchal*, on the south coast. The small island of *Porto Santo*, to the eastward of Madeira, also belongs to Portugal. It is a dependency of Madeira. The inhabitants of Madeira and Porto Santo number 132,000, chiefly Portuguese.

**COLONIES.**—The foreign possessions of Portugal were formerly much more extensive than at present. In the fifteenth century, the Portuguese were the foremost among the maritime nations of Europe; and the discoveries of Cabral in the Atlantic and of Vasco da Gama in the Indian Ocean were speedily followed by the conquest of vast territories in South America and the East Indies.

The foreign possessions of Portugal comprehend the **Cape Verde Islands**, the province of **Angola** and other territories on the West Coast of Africa, with **St. Thomas** and **Prince's Island** in the Gulf of Guinea; the province of **Mozambique** and other territories on the East Coast of the African continent; together with **Goa** on the western coast of India, **Macao** in China, and part of the island of **Timor** in the East Indies.<sup>1</sup>

#### QUESTIONS ON SPAIN AND PORTUGAL.

1. How is Spain bounded, and what is its size as compared with that of England and Wales?
2. In what does the coast-line of Spain differ from that of the Italian or the Grecian peninsulas?
3. Name the principal capes. Point to them on the map.
4. What islands in the Mediterranean belong to Spain?
5. Name the mountain chains of Spain. Which of them is the highest?
6. What kind of country (as to physical features) does the interior of the Spanish peninsula form?
7. Enumerate the principal rivers of Spain.
8. By what is the climate of Spain chiefly characterised?
9. What productions of the vegetable kingdom belong to the southern and eastern shores of Spain?
10. What minerals does Spain possess? Which among them is furnished by the mines of Almaden, and where is that place?
11. What branches of industry chiefly distinguish Spain?
12. Under what form of government is Spain? Name the thirteen provinces into which Spain is historically divided.
13. Which of these provinces is most to the southward? Which in the north-west angle of the peninsula? Which in the north-east? Which two in the central parts of the kingdom?
14. In which of the provinces are the following towns:—Madrid, Burgos, Valladolid, Sevilla, Cadiz, Cartagena, Barcelona, and Alicante?
15. In which provinces are Badajoz, Saragossa, Pamplona, Orieso, Corunna, and Santiago?
16. Upon what rivers are the following towns

- situated:—Madrid, Toledo, Badajoz, Cordova, Saragossa, and Granada?
17. Upon what portions of the Spanish coasts are Cadiz, Malaga, Cartagena, Barcelona, San Sebastian, Ferrol, and Vigo?
  18. For what are Talavera, Badajoz, Saragossa, and San Sebastian historically noteworthy?
  19. By what events have the ports of Palos and San Lúcar been distinguished? In what part of Spain are they situated?
  20. In what part of Spain is Gibraltar? What are the peculiarities of its situation (as to natural features), and to what nation does it belong?
  21. What foreign possessions belong to Spain?
  22. How is Portugal bounded? What is its size as compared with that of Spain, and England and Wales?
  23. Name the rivers of Portugal. Which of the number has its course entirely within that country?
  24. What kind of climate has Portugal? What fruits are among its productions?
  25. What branch of industry is most important in Portugal? In what does its foreign trade chiefly consist?
  26. Under what form of government is Portugal? What religion is uniformly followed?
  27. In which of the provinces of Portugal are Lisbon and Oporto respectively situated? On what rivers are they?
  28. Where are Coimbra and Setubal? What article of commerce does Setubal furnish?
  29. For what are the localities of Vizeira, Torres Vedras, and Cape St. Vincent noteworthy?
  30. Describe briefly the Azores and Madeira. What other colonies belong to Portugal?

1. The Portuguese possessions in Africa are officially estimated to have an area of 697,000 square miles, and a population of about 2,500,000.

The possessions in Asia have an area of only 7,160 square miles, and a population of about 880,000.

## ASIA.

**ASIA**,<sup>1</sup> the most eastwardly of the three continents which constitute the Old World, is the largest of all the great divisions of the globe. This continent falls entirely within the northern hemisphere, but some of the adjacent islands extend to the south of the equator.

**BOUNDARIES.**—Asia is bounded on the *north* by the Arctic Ocean; on the *east* by the Pacific Ocean; on the *south* by the Indian Ocean; on the *west* by the Red Sea, the Mediterranean Sea, the Black Sea, the Caucasus Mountains, the Caspian Sea, the river Ural, and the Ural Mountains.

To the northward of the Caucasus Mountains and the Caspian Sea, Asia and Europe constitute one continuous expanse of land, with only the course of the river Ural and the slight elevations of the Ural Mountains to mark the division between them. Asia is joined to Africa by the Isthmus of Suez, 73 miles wide, which lies between the Mediterranean and the Red Seas. Bering Strait, 35 miles in width, separates Asia from North America.

**EXTENT.**—Asia measures more than 5,000 miles across in the direction of east and west, and about 4,000 miles in its average dimensions from north to south. Its *area* is 17,500,000 square miles, so that it is nearly five times larger than Europe.

Asia thus embraces more than a third part of all the land, or a twelfth part of the entire surface, of the globe. The distance between Cape Chelyuskin, the extreme northerly point of the continent, to Cape Romania, the most southerly point (about 5,800 miles), is much less than the distance between the most easterly and westerly points, East Cape and Cape Baba (about 7,000 miles).

**COASTS.**—The total length of the *coast-line* of Asia is about 35,000 miles, equivalent to an average of 1 mile of coast to every 500 square miles of area.<sup>2</sup>

In shape, Asia is less irregular and more solid than Europe. Its vast interior exhibits an immense expanse of land, far removed from contact with the ocean. But its external portions, both in the east and the south, are indented by numerous arms of the sea.

1. **Inlets.**—Each of the three great oceans which wash the shores of Asia have several considerable inlets, but those belonging to the Indian and the Pacific Oceans are much more numerous than those connected with the Arctic.

(1.) The Arctic Ocean, on the north side of Asia, has two considerable gulfs, the *Gulf of Obi* and the *Gulf of Yenisei*.

(2.) The Pacific Ocean, which washes the eastern shores of Asia, has the following arms:—the *Bering Sea*, the *Sea of Okhotsk*, the *Sea of Japan*, the *Yellow Sea*, and the *China Sea*. These are not inland seas, in the strict meaning of the term, but they are divided from the open ocean by chains of islands and advancing peninsulas. They are therefore in great measure land-

1. *Asia*. Most probably derived from a Hebrew or Assyrian root, meaning the "East" or the "rising sun." Bitter is of opinion that it is derived from the *Asai*, one of the old Caucasian tribes mentioned by Ptolemy.

2. Europe has 1 mile of coast to every 190 square

miles of area. No part of Europe is more than 700 miles from the sea, and the average distance of central Europe is under 400 miles, but the Great Altai Mountains, in the centre of the continent, are about 1,400 miles from each of the three great oceans which wash the shores of Asia.



enclosed, though connected with the ocean by numerous channels. The northern part of the Sea of Japan is called the *Gulf of Tartary*.

(3.) The *Indian Ocean*,<sup>1</sup> on the south of Asia, divides into the *Bay of Bengal* and the *Arabian Sea*; the former is on the east side of the peninsula of India Proper, the latter on its western side. The *Red Sea*<sup>2</sup> and the *Persian Gulf*, which are two inland seas, are likewise arms of the Indian Ocean. The Red Sea divides on the north into the Gulfs of Suez and Akaba, between which is the Sinai Peninsula.

(4.) The western shores of Asia are washed in part by the Mediterranean, Black, and Caspian Seas. The Gulfs of Iskenderun and Adalia belong to the Mediterranean, and the Kara Bughas Gulf and Dead Bay to the Caspian.

2. **Straits.**—The most important straits of Asia are five in number, namely:—

- (1.) Strait of Bab el Mandeb, forming the entrance to the Red Sea.
- (2.) Strait of Ormuz, forming the entrance to the Persian Gulf.
- (3.) Strait of Malacca, forming one entrance to the China Sea.
- (4.) Strait of Sunda, forming another entrance to the China Sea.
- (5.) Bering Strait, between Asia and North America.

Besides these there are the *Dardanelles* (between the *Ægean Sea* and the Sea of Marmora), and the *Strait of Constantinople* (between the Sea of Marmora and the Black Sea), which are European as well as Asiatic. The broader channel which extends between the Strait of Bab el Mandeb<sup>3</sup> and the Indian Ocean is called the *Gulf of Aden*, and the similar channel which leads to the Strait of Ormuz is called the *Gulf of Oman*.

3. **Capes.**—The principal are the North-East Cape, or Cape Chelyuskin,<sup>4</sup> on the north; East Cape and Cape Lopatka, on the east; Cape Romania, Cape Comorin, and Ras al Had, on the south; and Cape Carmel and Cape Baba, on the west.

The North-East Cape of Asia, the extreme point of the Taimyr Peninsula, is the most northerly point of that continent, and approaches within less than twelve degrees of the pole. Cape Romania, the terminal headland of the Malay Peninsula, is the most southerly point, and is little more than one degree distant from the equator. East Cape, the most easterly point, is only 36 miles distant from Cape Prince of Wales, on the American side of Bering Strait. Cape Baba, in Asia Minor, is the most westerly point of the mainland, but several of the islands in the *Ægean Sea*, which geographically belong to Asia, lie some miles further west.

**PENINSULAS.**—The following peninsulas belong to Asia:—Kamtchatka, Corea, Further India, India Proper, Arabia, and Asia Minor. The two first-mentioned are in the east, the three following in the south, and Asia Minor in the west. The most southerly portion of Further India or the Indo-Chinese Peninsula forms the narrow Peninsula of Malaya.

The Asiatic peninsulas, though considerable in size, yet bear a much smaller proportion to the entire extent of Asia than the peninsular portions

1. For full information relative to the Arctic, Pacific, and Indian Oceans, see "The Geography of the Oceans, Physical, Historical, and Descriptive" (G. Philip & Son).

2. Red Sea. Generally said to be derived from the coral reefs which abound in it. This is erroneous, as the corals are mostly white. But patches of deep-red water are frequently seen within the reefs, whence the name. These

patches are due to the presence of vast numbers of microscopic animalcules.

3. Bab el Mandeb, "gate of tears;" so called from the numerous shipwrecks in the early and middle ages.

4. The North-East Cape of Asia is sometimes called North Cape or Cape Severo. The Russian name (Chelyuskin) is now generally used by geographers.

of Europe do to the whole of the European continent. They leave the great central mass of Asia in unbroken solidity. In Asia, the peninsulas merely fill the place of external members to the general framework of the continent; in Europe, they constitute the most important features of the continent itself. This difference is highly important. It is a remarkable fact that all the great peninsulas of Asia, except Asia Minor, are, like those of Europe, turned to the south. It is also noteworthy that all the Asiatic peninsulas, except Malaya and Kamtchatka, unite more or less broadly with the mainland. The neck of land which joins Kamtchatka to the Siberian mainland is about 115 miles wide in its narrowest part, and the Isthmus of Krai, which unites the Malay Peninsula to the larger Indo-Chinese Peninsula, is, in one part, only about 80 miles wide. But by far the most important is the Isthmus of Suez, which connects Asia with Africa. This isthmus is about 70 miles across, and is now traversed by a ship canal from Port Said on the Mediterranean to Suez on the Red Sea. This canal has almost entirely superseded the overland route by rail from Alexandria to Cairo and thence to Suez, and is at present the great highway of commerce between Europe and the East Indies and Australasia.

**ISLANDS.**—The islands of Asia are important and numerous, especially off its southern and eastern coasts. They may be arranged in four great classes—(1) those situated in the Arctic Ocean, (2) those in the Pacific, (3) those in the Indian Ocean, and (4) those in the Mediterranean Sea.

1. In the Arctic Ocean are the Liakhov<sup>1</sup> or New Siberia Islands, the Bear Islands, and Wrangel Island, off the northern coast of Siberia.

2. In the Pacific Ocean are the Aleutian Islands, which extend from Alaska to Kamtchatka and enclose Bering Sea; the Kurile Islands, between Kamtchatka and Japan, which enclose the Sea of Okhotsk; Sakhalin,<sup>2</sup> between the Sea of Okhotsk and the Sea of Japan—the latter sea is enclosed on the east by the Japanese Islands (Yezo, Nippon, Sikoku, and Kiusiu); the Loo-choo Islands, a group midway between Kiusiu and Formosa;<sup>3</sup> Hainan, off the entrance to the Gulf of Tonquin; and the Philippine Islands. The last-named group of islands forms a portion of an extensive region known as the Malay Archipelago, which lies between the waters of the Pacific and the Indian Ocean, bordering on each.

The *Malay Archipelago* embraces, besides the Philippine Islands, the large islands of Borneo, Sumatra,<sup>4</sup> Java, and Celebes, with the group of the Moluccas, and a long chain of smaller islands, which stretch to the eastward of Java and are known as the Lesser Sunda Islands. Borneo is the largest island in the East Indies, and (regarding Australia as a continent) the third largest island in the world.

3. In the Indian Ocean:—Ceylon, off the south-eastern extremity of India; the Andaman and Nicobar Islands, in the Bay of Bengal; and the Laccadive and Maldive Islands, off the south-western coast of India.

4. In the Mediterranean Sea:—Cyprus, in the Levant, with Rhodes, Kos, Samos, Mitylene, and several of the small islands of the Archipelago.

\*.\* The above islands are described under the countries to which they geographically belong.

1. These islands are noted for the immense quantities of fossil ivory found on them.

2. Or Saghalien.

3. Formosa, "beautiful."

4. Also called *Malaysia* and *East Indian Archi-*

*pelago*. Several of the Malaysian islands contain numerous active volcanoes, and the whole group is subject to earthquakes.

5. Sumatra and Java are together called the Greater Sunda Islands.

## EXAMINATION QUESTIONS.

1. State briefly the position and boundaries of Asia.
2. What are the dimensions of Asia, and what proportion does its area bear to the whole extent of the land upon the globe?
3. What characterises the shape of the Asiatic continent?
4. What two gulfs does the Arctic Ocean, on the north of Asia, form?
5. What seas occur on the eastern side of Asia?
6. What two great arms has the Indian Ocean, to the south of Asia?
7. What two inland seas belong to Asia?
8. Where are the following:—the Gulf of Obi, the Sea of Okhotsk, the Gulf of Tartary, the China Sea, and the Bay of Bengal?
9. Name the five principal straits of Asia, and state the seas and gulfs which they unite.
10. Name the principal capes of Asia, and state which of them form the extreme points of the continent.
11. How near does the most northerly cape of Asia approach to the pole?
12. How near is the most southerly point of Asia to the equator?
13. Name six of the largest Asiatic peninsulas.
14. What smaller peninsula forms the southwardly portion of India beyond the Ganges?
15. In what respect do the peninsulas of Asia differ (in their relation to the entire mass of the Asiatic continent) from those of Europe?
16. What isthmus joins (1) the Malay peninsula to the mainland; (2) Asia to Africa?
17. Name the principal islands of Asia, and say where they are situated.
18. What islands are situated to the north of Asia?
19. Point on the map to the following:—Japan, the Kurile Islands, Formosa, Sumatra, Ceylon, the Andaman Islands, the Maldivé Islands, and Cyprus.

**SURFACE.**—The characteristic feature in the surface of Asia is the vast contrast between the loftiest mountains and the greatest depressions; extensive plateaux and enormous plains; most fertile tracts bordering on sterile deserts.

A careful examination of a good physical map of Asia will enable the student to note the actual examples of these characteristic contrasts of the Asiatic continent. Thus, while some of the Himalayan peaks rise 10,000 feet above the line of perpetual snow, the Runn of Cutch is so low that it is inundated by the sea during the south-west monsoon; the vast plateau of Tibet contrasts strongly with the plains of Siberia and Hindustan; and the fertile and productive plain of the Ganges is only divided from the bare and sandy expanse of the Great Indian Desert by the Aravalli Hills.

The mountains of Asia are the highest in the world; but they are, notwithstanding, of inferior importance to the vast and elevated masses of tableland which belong to this continent. The mountain chains of Asia generally mark the outer borders of the high interior plateaux. Hence their slope, or descent, is much greater upon one side than upon the other, and the apparent altitude of the chain is different according as it is viewed from the grounds which form its base in opposite directions.

**TABLELANDS:** Asia is, *par excellence*, the continent of great tablelands. The Pamir Plateau—the “Roof of the World,” the Tableland of Tibet, the Mongolian Plateau with the upland Desert of Gobi or Shamo, the Iranian Plateau, which includes the uplands of Afghanistan and Persia, the Armenian Highlands, and the Plateau of Asia Minor, with the Arabian Plateau, and the Deccan in Southern India, are the largest of the tablelands, which cover fully *two-fifths* of the entire continent.

The position of these great uplands will be readily found upon the map. Tibet and Mongolia, it will be seen, occupy the interior and most central regions of the Asiatic continent, far distant from any of the oceans by which the shores of Asia are washed. Afghanistan, Persia (Iran), Armenia, and Asia Minor stretch in succession from the north-western borders of India to the shores of the Mediterranean and the Black Sea. The Deccan embraces the interior of Central and Southern India. The Arabian Plateau comprises all the interior of the large peninsula of Arabia.

These regions are of various heights, ranging between 2,500 and 16,000 feet above the level of the sea; but they all lie at much greater elevations than other parts of the continent, and most of the rivers of Asia have their origin in the mountain chains which form their external borders. The most elevated of the number are the **Pamir Plateau** and the tableland of **Tibet**. The vast plains of the latter are at the astonishing altitude of 16,000 feet (or upwards of three miles) above the sea. Tibet is, therefore, comparatively to its latitude, a cold country.

**MOUNTAINS.**—The mountains of Asia lie principally in the direction of east and west, and form, in most instances, the borders of the tablelands. Some of them, however, have an opposite direction, running from north to south.

The principal mountain ranges are the **Himalaya Mountains**,<sup>1</sup> between India and Tibet; the **Hindu-Kush**, between Afghanistan and Turkestan; the **Altai Mountains**,<sup>2</sup> between Mongolia and Siberia; the **Karakoram Mountains**, between the Himalayas and the Kuen-Luen; the **Kuen-Luen**, between Tibet and Chinese Turkestan; the **Thian-Shan**,<sup>3</sup> which run through Chinese Turkestan and Mongolia; the **Elburz Mountains**, in Persia, south of the Caspian Sea; the **Caucasus**, between the Caspian and the Black Seas; the **Mountains of Armenia**, on the plateau of Armenia; the **Taurus Mountains**, in Asia Minor; the **Mountains of Lebanon**, on the east coast of Syria; the **Ghats**, on the eastern and western coasts of India; and the **Nan-ling** and the **Pe-ling Mountains**, in China.

Of the above ranges two only, the Ghats and the Mountains of Lebanon, extend in the direction of north and south—all the rest extend generally in an east to west direction. Several of the minor ranges, however, also extend north and south, such as the Sulaiman Mountains and the Hala Mountains, on the western frontiers of India. These and other minor ranges are described under the countries in which they are situated.

1. The **Himalaya Mountains** are by far the highest of the mountains of Asia. All the upper portions of this vast range rise above the line of perpetual snow, and the principal peaks exceed 20,000 feet in altitude. The most elevated of the Himalaya peaks is *Gaurisankar* or *Mount Everest*, which reaches 29,000 feet above the sea, and is the highest known mountain on the globe. This is a stupendous elevation, amounting to more than five miles in perpendicular height, and nearly double that of Mont Blanc, the highest summit of the Alps. Yet, great as it is compared with man, or the works of man, it is trifling as compared with the entire magnitude of the globe.\* Many of the other peaks of the Himalayas nearly rival Mount Everest in height, *Kanchinjanga* rising over 23,000 feet, and *Dhawalagiri* nearly 27,000 feet above sea level. The higher valleys of the Himalayas are filled with vast glaciers, which exceed in size those of any other part of the world. It is worthy of note that the snow-line on the northern side of the Himalayas is 3,000 feet higher than on the southern side (18,000 and 15,000 feet respectively).

2. The **Hindu-Kush** adjoin the western extremity of the Himalayas (from which they are divided by the valley of the Indus), and reach nearly 20,000 feet in altitude. They form part of a vast mountain-knot, or centre of elevation, whence various elevated chains and ridges diverge, and form

1. Himalaya, from Sanskrit *him*, snow; *alaya*, place.

2. Altai Mountains: called by the Mongols *Altaï-în-cola*, i. e., golden mountains. The name Altai is most probably derived from the Turkish *Al-tagh*, the mountain.

3. Thian-Shan, "mountains of the sky;" also called the "Celestial Mountains." The Chinese name for the empire (*Tai-chung-Kwo*) means the "Celestial Empire."

4. The height of Mount Everest is equal to about one *fifteen-hundredth* part of the length of the earth's diameter, and would be represented on the largest of our artificial globes by a minute grain of sand; so little do the loftiest elevations on the earth's surface detract from the sphericity of the entire mass of the globe. The altitude of this mountain was first determined by Colonel Everest, hence its name.

a connecting link between the highlands of central Asia and those that belong to the more westerly division of the continent.

3. The **Altai Mountains** are much less elevated, their height not generally exceeding from five to seven thousand feet; but they form part of a continuous succession of high grounds which stretch to the easternmost extremity of the Asiatic continent.

4. The **Kuen-Luen** and **Thian-Shan** ranges stretch through the plains of central Asia, across the country which intervenes between the Himalaya and the Altai systems. They rise above the snow-line, the summits of the former reaching 20,000 feet.

5. Between the Himalayas and the Kuen-Luen are the lofty **Karakoram Mountains**. One peak in this range, *Dapsang*, reaches an altitude of 28,000 feet, and another peak rises still higher, its altitude being 28,278 feet. This mountain, marked "K<sup>2</sup>" on the Indian Survey Map, and now named *Mount Godwin Austin*, is the second highest mountain in the world.

6. The **Mountains of Armenia** culminate in *Mount Ararat* (17,000 feet), which tradition indicates as the resting-place of the Ark on the subsidence of the Deluge. It is within the Russian territory, but near the borders of Asiatic Turkey and Persia.

7. The chain of **Mount Taurus** extends along the south coast of the peninsula of Asia Minor, and is from 4,000 to 5,000 feet in average height.

8. The **Mountains of Lebanon** stretch, in a double chain, along the coast of Syria, bordering the eastern Mediterranean. Their highest summits are *Mount Hermon* and *Dahr el Khotib*; the latter rises 10,050 feet above the sea, the former is 9,200 feet.

9. The **Western Ghats**, which extend along the western coast of the Indian peninsula, are from 3,000 to 4,000 feet in average height, and attain double that altitude in their highest elevations. The **Eastern Ghats**, on the opposite side of the peninsula, are less elevated.

**PLAINS.**—The interior regions of Asia are, for the most part, elevated; the lowland plains occupy its outer borders towards the sea. The names and localities of these plains<sup>1</sup> are as follow:—

1. The **Plain of Siberia**, occupying all the north of Asia.
2. The **Plain of Turkestan**, extends south and east of the Sea of Aral.
3. The **Plain of China**, in the north-east of China, along the Yellow Sea.
4. The **Plain of Tonquin**, in the north of Annam, along the Gulf of Tonquin.
5. The **Plain of Siam**, at the head of the Gulf of Siam.
6. The **Plain of Pegu**, in Further India, to the south of Burma.
7. The **Plain of Hindustan**, the northerly portion of India Proper.
8. The **Plains of Mesopotamia and Babylonia**, in Asiatic Turkey.

**DESERTS.**—Asia contains some extensive deserts. They stretch in nearly continuous succession, from the most central regions of the interior to the shores of its south-western peninsula, Arabia, where they meet the waters of the Red Sea. Their names<sup>1</sup> are as follow:—

1. The **Desert of Gobi** or **Shamo**,<sup>2</sup> in Mongolia (Chinese Empire).
2. The **Indian Desert**, in India, between the Indus and the Ganges.
3. The **Deserts of Selistan and Mekran**, to the south-west of Afghanistan.
4. The **Great Salt Desert (Dasht-i-kavir)**, in Persia.
5. The **Desert of Mesopotamia**,<sup>3</sup> between the Tigris and the Euphrates.
6. The **Syrian Desert**, in the east of Syria, in Asiatic Turkey.
7. The **Desert of Arabia**, in the interior of Arabia.

1. A detailed description of each of the above plains and deserts is given in the geography of the countries in which they are situated.

2. Gobi is the Mongolian word for "desert;" Shamo (Chinese), "sea of sand."

3. Or El Jazīrah.

**RIVERS.**—The rivers of Asia are the largest in the Old World. Most of them derive their origin from the high tablelands and bordering mountains in the interior of the continent, and flow through the lowland plains into the oceans by which Asia is bounded on the north, east, and south.

Some of the rivers in the western part of Asia, however, flow either into the Caspian Sea or the Sea of Aral, and hence never reach the ocean; and many of the smaller streams of the interior terminate in saltwater lakes, without any outlet. A large region of central Asia is thus limited to an inland drainage and is devoid of any natural outlet to the sea—a fact which has been productive of highly important consequences to the inhabitants of those regions, and has largely influenced the history of mankind.

The principal rivers of Asia<sup>1</sup> are the **Obi, Yenisei, Lena**, and other Siberian rivers draining the *Northern Slope* of the continent; the **Amur, Hoang-ho, Yang-tse-kiang**, and the **Si-kiang** or Canton River, draining the *Eastern Slope*; the **Mekong, Menam, Saluen, Irawadi, Brahmaputra, Ganges, Mahanadi, Godaveri, Kistna, Cauveri, Tapti, Nerbada, Indus, Euphrates, and Tigris**, draining the *Southern Slope*; the **Kizil Irmak**, flowing into the *Black Sea*; the **Ural, Kura**, and the **Kizil Uzen and Atrek**, which enter the *Caspian Sea*; the **Amu Daria** and the **Sir Daria**, which flow into the *Sea of Aral*; and the **Jordan**, which falls into the *Dead Sea*.

∴ The rivers of Asia may be also arranged in **five groups**, according to the systems of which they form a part.

1. The Asiatic Section of the Arctic River-System embraces all the rivers which drain the *northern slope* of the continent. Of these, the largest are the **Obi, the Yenisei, and the Lena**, the three great rivers of Siberia.

2. The Asiatic Section of the Atlantic, or rather Mediterranean, River-System embraces numerous unimportant streams that fall into the *Black Sea, the Egean Sea, and the Mediterranean*, from Trans-Caucasia and Asiatic Turkey.

3. The Asiatic Section of the Pacific River-System is far more important than the American or the Australian sections, both in the number and magnitude of its rivers, which rise far inland among the mountains that buttress the great central plateau of Asia. The principal streams are the **Amur**, forming, for the most part, the boundary between the Russian and Chinese dominions; the **Hoang-ho, Yang-tse-kiang, and Si-kiang**, in China; and the **Song-ka, Mekong, and Menam**, in Further India.

4. The Asiatic Section of the River-System of the Indian Ocean comprises some of the largest rivers of the globe, such as the **Irawadi, Brahmaputra, and Ganges**, which fall into the *Bay of Bengal*; the **Indus**, flowing into the *Arabian Sea*; and the **Tigris and Euphrates**, which unite their waters into one stream—the **Shat el Arab**—before debouching into the *Persian Gulf*. Of the smaller streams included in this section, the principal are the **Saluen and Sitang**, flowing into the *Gulf of Martaban*;

1. A detailed account of the principal rivers is given under the countries to which they geographically belong.

the Mahanadi, Godaveri, Kistna, and Cauveri, draining the eastern slope of *Peninsular India*; and the Tapti and Narbada, flowing into the *Gulf of Cambay*. Between the Indus and the Shat el Arab, a few unimportant rivers enter the sea, but the whole circuit of the Arabian coast is unbroken by the outlet of any permanent stream.

The Brahmaputra and the Ganges derive their waters not only from the snows of the Himalayas, but also from the monsoon rains. The numerous streams that drain the Deccan, on the contrary, are supplied entirely by the monsoon rains, and are thus subject to comparatively greater variations in depth and volume. The line of elevation that marks the edge of the Deccan being continuous on the western side only (the Eastern Ghats being merely a series of detached elevations), all the great rivers of Peninsular India, with the exception of the Narbada and the Tapti, flow eastwards into the Bay of Bengal, their descent from the plateau to the coast plain being marked by rapids or by falls.

5. **The Continental River-System of Asia** includes all those rivers which have no outlet to the sea, but discharge their waters into enclosed basins, such as the Caspian, the Sea of Aral, &c.

The *Caspian Sea*, which receives the longest of European rivers, only receives a few comparatively small Asiatic streams—the Kura, the Kizil-Uzen, and the Atrak. The adjacent *Sea of Aral* receives two considerable streams, the Amu Daria, and the Sir Daria. East of the Sea of Aral is another great inland basin, *Lake Balkash*, which receives numerous streams—the most important is the Irtys—from the northern slopes of the Thian-Shan Mountains. The surplus waters of the *Tarim*, which is fed by numerous streams from the encircling mountains, are poured into the great marshes of *Lob-Nor*, in the very centre of the continent. Other smaller continental streams are the *Jabkan* in the Altai region, the *Zarafshan* in Western Turkestan, and the *Jordan* in Palestine.

**LAKES.**—The three largest lakes of Asia, if we except the *Caspian Sea*, which is partly European, are *Aral*, 26,000 square miles in area, *Baikal*, 15,000, and *Balkash*, 9,000.

The *Sea of Aral*, though strictly speaking a lake, is so large as to be called a sea. It lies a short distance to the east of the Caspian, and its waters are unusually salt. *Lake Baikal* lies to the north of the Altai Mountains, and is the largest *fresh-water* lake in Asia. *Lake Balkash* is in Russian Central Asia; its waters are bitterly salt. Many of the lakes which are situated on the high interior plateaux in Tibet and Mongolia are without any outlet, and consist of salt-water; but this is not the case with all of them. There are also some large fresh-water lakes in China, adjoining the great rivers of that country.

In Western Asia, three large lakes are found upon the Armenian Plateau. Two of the number, *Lake Urumiah* and *Lake Van*, are *salt*; the third, *Lake Gokcha* or *Sevan*, in Trans-Caucasia, is *fresh*. The *Dead Sea*, in Syria, which receives the river *Jordan*, is intensely salt, and is remarkable as lying in a deep hollow, its surface being far below the general level of the waters of the globe.<sup>1</sup>

1. The surface of the *Dead Sea* is nearly 1,300 feet below the level of that of the *Mediterranean Sea*.

## EXAMINATION QUESTIONS.

1. What are the characteristic features on the surface of Asia?
2. Name and state the position of the principal tablelands of Asia.
3. What is the general direction of the mountain chains of Asia?
4. Name the principal mountain systems of Asia?
5. Where are the following:—The Himalayas, Altai, Taurus, Ghats, Hindu-Kush, and the Lebanon?
6. Which is highest among the mountain systems of Asia? What is the name of its loftiest summit?
7. What is the average height of the Altai mountain system? How far does it extend to the eastward?
8. Which is highest among the mountains of Armenia? What tradition attaches to it?
9. What is the name of the highest among the mountains of the Lebanon, and what is their altitude?
10. What is the average height of the Ghats?
11. Name the chief lowland plains of Asia.
12. Which is largest among the Asiatic lowlands?
13. By what rivers are the plains of Mesopotamia and Babylonia watered?
14. Name the principal deserts of Asia.
15. An extensive region of Asia is watered by rivers which have no outlet to the ocean. What portion of the continent does this comprise?
16. Name the great rivers of Asia which flow into (1) the Arctic Ocean, (2) the Pacific Ocean, (3) the Indian Ocean, (4) the Sea of Aral, (5) the Caspian Sea.
17. Name the principal rivers of Asia, and say into what seas they flow.
18. What three rivers rise in the mountain system of the Himalaya?
19. Name the two great rivers of China.
20. Which are the three largest among the lakes of Asia? What characteristic difference is there between them?
21. What three lakes are situated on the plateau of Armenia? Are their waters salt or fresh?

**CLIMATE.**—Asia comprehends a greater variety of climate than any other division of the globe. This results from its vast extent of land and its great range of latitude. The extreme south of the Asiatic continent nearly touches the equator, and its northernmost portions are within twelve degrees of the pole. Hence there are experienced, within different portions of its vast extent, every variety of temperature, from the burning heat of the tropics to the most intense cold of the Frigid Zone.

But latitude alone does not determine the extraordinary range of Asiatic climates in respect of heat and cold. The vast extent and great altitude of the tablelands of Asia; its stupendous chains of snow-covered mountains; the great distance of its central interior from the modifying influence of oceanic moisture;—these require to be taken into account in order to explain the extremes of heat and cold which distinguish the summers and winters of Asiatic lands.

1. In Asia, as in every other part of the globe, there is a gradual decrease of heat in advancing from the neighbourhood of the equator towards a higher latitude.

(1.) The southern portion of Asia is in the Torrid Zone; its middle parts fall within the Temperate Zone; and its northerly plains are beyond the Arctic Circle—that is, in the Frigid Zone. Hence the southern parts of Asia are hotter than its middle portions, and the latter experience a higher temperature than its more northerly regions.

(2.) But there is also a great difference of temperature between the regions of eastern and western Asia, even in similar latitudes, and the extremes of summer and winter temperature cause wide differences of climate even in countries which make near approach to equality in so far as the average

1. After a thorough study of the climate of Asia, the student should compare it with that of Europe (see p. 229), noting especially the points of resemblance and difference.



heat of the year is concerned. In general, the eastern parts of Asia are colder than the western, and they have greater extremes of heat and cold at opposite seasons of the year; that is, they have hotter summers and colder winters. Similar extremes characterise the high plains of central Asia and, in greater or less measure, all its tableland regions.

2. Three broad and well-marked climatic divisions may be marked out on the map of Asia:—

- (1.) A southern belt of countries, in which the air is hot and moist.
- (2.) A middle zone, which is generally hot and dry, but with great extremes of heat and cold.
- (3.) A northerly zone, which is a region of intense and prolonged cold.

The *first* zone comprises the countries that border on the Indian Ocean and the China Sea, with the exception of Arabia, which is characterised by aridity. The *second* includes the high plateaux which stretch in succession from the shores of the Red Sea to the further extreme of Mongolia. Tibet and Mongolia furnish its most prominent examples: Afghanistan, Persia, and Arabia fall within its limits, though the low belt of country which borders the outer edge of the Arabian peninsula is intensely hot and arid, and the shores of the Persian Gulf are among the hottest regions of the globe. The *third* zone stretches from the shores of the Caspian Sea and the Sea of Aral to the easternmost limits of the Siberian plain. Turkestan and Siberia are the countries that it embraces.

**Rainfall.**—The quantity of rain that falls in most parts of southern Asia is very great, vastly greater than is the case in any part of Europe, but it falls at particular seasons only, and within a brief space of time.

In the countries of the Torrid Zone (to which the south of Asia belongs), the changes of the year are marked by the recurrence of the wet and the dry seasons. Summer and winter, such as they are experienced in temperate latitudes, are there unknown; a lengthened period of dry weather (during which the sun is almost uniformly bright and the sky cloudless) is succeeded by a season of excessive rain, which again gives place to returning drought and heat. These changes are intimately connected with the direction of the winds which blow periodically over the Indian Ocean and the bordering countries, and which are known as the *monsoons*.<sup>1</sup> Throughout southern Asia there is a summer monsoon (April to September), which blows from the south-west; and a winter monsoon (October to March), from the north-east. These winds bring alternate rain or drought, according as they have blown over inland regions or over the adjacent expanse of ocean.

**PRODUCTIONS.**—The natural productions of Asia are numerous and important. Nearly every mineral and metal is found in this vast continent. The vegetable productions are extremely varied, while the variety of animal life is great, comprising over six hundred mammals, or more than a third of the number of known species.

1. **Minerals.**—Asia has great variety of mineral produce, and some of the most valued productions of the mineral kingdom are found within its limits. The *diamond* and other precious stones occur; the former in Borneo and others of the East Indian Islands, and also in continental India. *Gold* is furnished in some quantities by the mines of Siberia (both in the Altai and Ural mountain-regions), and is also worked in Borneo and the countries of the Indo-Chinese Peninsula, as well as in

1. The word "monsoon" in Malay signifies *season*, a fact which is evidence of the immediate dependence of Indian climates upon the periodical currents of the atmosphere. The drift-currents of the Indian Ocean north of the equator are also regulated by the monsoons.

China and Japan. Both Siberia and China supply *silver* and also *lead*. *Iron*, *copper*, *tin*, and other useful metals are distributed through the various countries of western and southern Asia. The tin of Banca (one of the smaller islands of the East Indies, situated to the east of Sumatra) is particularly noted. Iron-ore abounds in various parts of India. *Coal* is distributed through various parts of India, China, and Burma, and is worked in the small island of Labuan, off the north-west coast of Borneo. The coalfields of China are the most extensive in the world, and, when developed, will revolutionize the industrial relations of Europe and Asia. In western Asia, coal occurs in Asia Minor and in the mountain range of the Lebanon, on the Syrian coast. Enormous quantities of petroleum are derived from the *naphtha-springs* of Baku, on the western shore of the Caspian Sea.

2. **Plants.**—The vegetable productions of Asia are extremely rich and diversified. A great number of the food-plants that are most useful to man, and which are now most extensively employed throughout the globe in the supply of man's wants, were originally derived from Asia. *Rice*, and probably *wheat*, among the cereals; the *date*, *fig*, *vine*, *plum*, *cherry*, *peach*, *apple*, *pomegranate*, *olive*, *mulberry*, *lime*, *walnut*, *almond*, *cocoa-nut*, *orange*, *lemon*, *citron*, and *banana*, amongst fruits; together with the *tea-plant*, and various *spices*, are all native to Asia. The *sugar-cane*, *indigo*, *cotton*, and *hemp plants* are also native to various countries of Asia. There are, besides, an immense variety of forest trees, as the *teak*, *ebony*, *iron-wood*, *sandal-wood*, *rose-wood*, *cedar*, and many other valuable woods, besides abundant varieties of the *oak*, *birch*, *cypress*, and other trees that belong to the southern and middle latitudes of Europe.

*Rice* is the chief food-plant of southern Asia, and is the prime support of life to the immense population of China and India. The fruit of the *date-palm* supplies a like place to the people of Arabia and other comparatively arid regions of south-western Asia. The *cocoa-nut* palm is characteristic of the islands of southern and south-eastern Asia, and of the shores of the two Indian peninsulas. The *tea-plant* is a native of China and Japan, and is now extensively cultivated in British India. The high plateaux of central Asia are distinguished chiefly by the abundance of their *grasses*; boundless pastures stretch through the whole middle belt of Asia, from the shores of the Caspian to the banks of the Amur and the waters of the Pacific.

3. **Animals.**—The variety of animal life belonging to Asia is very great. All our domestic quadrupeds are native to it, as well as many other animals which are of the highest utility to civilized man.

(1.) First in importance among these is the *camel*, which ranges over the dry plains of south-western and central Asia, from the Red Sea to the farthest extremity of the Gobi and the shores of Lake Baikal, serving everywhere as the means of transport across the arid wilderness. The *elephant*—another of the Asiatic quadrupeds which man has domesticated—belongs to the warm and watered regions in the south-east of the continent, including the two Indian peninsulas and the island of Ceylon. The *horse* frequents all southern and middle Asia, as far north as the sixtieth parallel, and the vast plains that stretch to the eastward of the Sea of Aral are probably its original seat. The *wild ass* inhabits the plains of central and south-western Asia.

The vast number of animals belonging to the ox tribe is a marked characteristic of Asiatic zoology. They are most numerous in the high plains of central Asia, and comprise, besides the common *ox*, the *aurochs*, *yak*, *zebu* (or humped ox), *buffalo*, and others. *Antelopes* occur in the drier regions of the south-west.

(2) Among *carnivora*,<sup>1</sup> the *lion*, *tiger*, *leopard*, *hyena*, *wolf*, and *jackal* are natives of Asia. The lion has now a much less extensive range than formerly, and is restricted to the countries lying between the Euphrates and the Indian Desert. The tiger is found over a much wider circuit, and frequents all the woods and jungles of southern and south-eastern Asia, roaming as far to the north as the deserts of the Mongolian Plateau and the Altai Mountains. The hyena and jackal belong chiefly to Western Asia; the wolf to the colder districts of the north and west.

The numerous fur-bearing animals which are native to the extreme north of Asia are another of its marked characteristics; among them are the *bear*, *gibbon*, *badger*, *wolf*, *fox*, *lynx*, *pole-cat*, *weasel*, *ermine*, *marten*, *otter*, *sable*, *squirrel*, *beaver*, *hare*, and *reindeer*.

(3) The countries of south-eastern Asia and the islands of the neighbouring archipelago are exceedingly rich in variety of birds, especially those of the *gallinaceous*<sup>2</sup> tribe, many of them distinguished by their beautiful plumage. It is thence that nearly all our breeds of domestic poultry were originally derived.

The *golden pheasants* of China, and the *Argus pheasants* of the East Indian Islands, belong to south-eastern Asia and the Malay regions. The *peacock* is a native of India. Among insects, the *silkworm* is a native of China, and was not introduced into Europe until the close of the fifth century.

**INHABITANTS.**—The *population* of Asia comprehends more than half the human race, and numbers at least 850 millions. China alone is said to contain 400 million people, and India has 280 millions, but the countries of western, central, and northern Asia are much less populous.

**Race and Language.**—Numerous diversities are found among the various families of mankind by whom Asia is inhabited; diversities of language, as well as of personal structure, appearance, and colour of skin. More than thirty different languages are spoken in India alone, nearly all of them, however, derived from a common stock—the Sanscrit tongue. Most of the languages of western Asia (and also of Europe) are allied, in their roots, to the same stock. The languages of eastern Asia—China and the Indo-Chinese Peninsula—form a totally different class. The *Chinese*, the *Indo-Chinese*, and the *Mongolian* tribes are distinguished by striking differences of personal appearance from other nations of mankind. They have a yellowish-brown (or olive) complexion; a broad and flattened face, with obliquely-set and deeply-sunk eyes (the inner corner slanting down towards the nose); lank and black hair, with little beard; a broad, square, and thick-set frame, with a stature considerably below that of Europeans. These are the distinguishing characteristics of the Mongolian variety of the human family. The *Malays*, who inhabit the Malay Peninsula and the islands of the East Indian Archipelago, belong to a distinct stock of nations, regarded as forming another of the leading varieties of mankind.

**Religion.**—Of the two great forms of religion that originated in south-western Asia, *Christianity* and *Mohammedanism*,<sup>3</sup> the latter has spread over Arabia, Asiatic Turkey, Persia, Turkestan (and to a less extent, Hindustan and Malaya), while the former is confined to Armenia, Georgia, and numerically unimportant sections of Asiatic Russia and British India. The prevailing religion in India is *Brahmanism*, from which, about 600 years B.C.,

1. That is, *lesh-eating* (Latin, *caro*, *carnis*, flesh, and *vor*, to eat).

2. That is, the class of birds commonly known as poultry, from the Latin, *gallus*, a cock.

3. Mohammedanism is divided into two great sects, the Sunnites and the Shiaks (or Shaites). The Wahabi sect of Central Arabia is of comparatively recent origin. (See p. 198).

sprang *Buddhism*,<sup>1</sup> professed by most of the peoples of the Indo-Chinese countries, and by large numbers of the lower classes in China and Japan. The *Lamaism* of Tibet is another form of Buddhism. The religion of the upper classes in China and Japan is *Confucianism*. Of the minor forms the most interesting is the *fire-worship* founded by Zoroaster, and which is still professed by the Parsis of India and the Guebres or Ghiscours of Persia. The nomadic tribes of Siberia and central Asia are *heathens*.

**DIVISIONS.**—By far the larger portion of Asia is held by three powers, two of which are European.

The *Russian* dominions embrace the whole of the northern part of the continent, a large portion of Central Asia, and the provinces of the Caucasus. Under *British* control, direct or indirect, is the vast peninsula of India, and the western and southern portions of Further India, besides the islands of Ceylon, Hong Kong, &c. The *Chinese* Empire comprises China Proper and the adjacent regions of Tibet, Eastern Turkestan and Zungaria, Mongolia, Manchuria, and Corea.

Of the minor powers in Asia, the most important are *Japan*, on the east, and *Turkey* and *Persia*, on the west. *France* occupies or controls the eastern part of Further India, and also possesses a few small towns in India; *Holland* has large and important possessions in the East Indian Archipelago; *Spain* still maintains its authority over the Philippine Islands; and *Portugal* has a few small settlements such as Goa on the coast of India, Macao off the coast of China, &c.

The following is a list of the countries of Asia, arranged in the order in which they are described:—

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. ASIATIC TURKEY.</li> <li>2. ARABIA.</li> <li>3. PERSIA.</li> <li>4. BALUCHISTAN.</li> <li>5. AFGHANISTAN.</li> <li>6. INDIA.</li> </ol> | <ol style="list-style-type: none"> <li>7. FURTHER INDIA.</li> <li>8. THE CHINESE EMPIRE.</li> <li>9. ASIATIC RUSSIA.</li> <li>10. THE EAST INDIAN ARCHIPELAGO.</li> <li>11. JAPAN.</li> </ol> |
|---|---|

### EXAMINATION QUESTIONS.

1. Why is so great a variety of climate experienced within the limits of Asia?
2. Which portions of Asia are within the Torrid Zone, which in the Temperate, and which in the Frigid Zone?
3. What characteristic difference is there between the climates of eastern and western Asia in similar latitudes?
4. What kind of climate do the high tablelands of Asia experience?
5. Dividing Asia into three belts or zones, what kind of climate is characteristic of each, and what countries are embraced within each?
6. What parts of Asia are distinguished by abundance of rain? By what changes are the seasons known in those localities?
7. What are the monsoons, and where do they prevail?
8. How do the monsoons affect the climate of India?
9. In what countries of Asia are gold, silver, iron, copper, tin, and coal found?
10. Name some of the fruits that are native to the soil of Asia.
11. Mention some of the forest trees that belong to this division of the globe.
12. Among the cereals (corn) what grain forms the chief food-plant of southern and south-eastern Asia?
13. To what parts of Asia is the tea plant native?
14. By what kind of vegetation are the tablelands of Central Asia distinguished?
15. Of domesticated quadrupeds, name some of those that are natives of Asia.
16. Within what portions of Asia is the camel found?
17. What part of Asia is supposed to have been the original seat of the horse?
18. In what region of Asia are the varieties of oxen most numerous?
19. Among carnivorous animals, name some that are natives of Asia.
20. In what part of Asia is the lion, tiger, hyena, jackal, and wolf found?
21. In what region of Asia are fur-bearing animals common?
22. What class of birds are numerous in south-eastern Asia and the neighbouring islands?
23. To what (in round numbers) is the population of Asia supposed to amount?
24. Which two countries of Asia contain the largest number of inhabitants?
25. In what particular of appearance do the Chinese and the people of south-eastern Asia differ from other varieties of mankind?
26. Name the countries occupied by the Mongolians and the Malays.
27. What are the prevailing religions of Asia?
28. Name the countries of Asia.

<sup>1</sup> So called from Sakya Muni, the Buddha (i.e., the enlightened), a Hindu prince, who first propagated its doctrines in northern India about

500 B.C. Its extension was rapid, and it has now more followers (estimated at 465 millions) than any other religion in the world.

## ASIATIC TURKEY.

The Turkish Dominions in Europe, formerly extensive, but now comparatively small, have been already described. The Sultan's **Asiatic Empire** is much larger, including, as it does, vast territories in Western Asia, which together form a continuous region stretching from the *Ægean Sea* to the head of the Persian Gulf, and from the Black Sea to the Strait of Bab el Mandeb.

Asiatic Turkey has for its northern boundary the **Black Sea**, the **Bosphorus**, the **Sea of Marmora**, and the **Dardanelles**. The boundaries on the west are the **Ægean Sea**, the **Mediterranean**, **Arabia Petrea**, and the **Red Sea**; on the south it is limited by **Central Arabia**; and on the east it is bounded by the **Persian Gulf**, **Persia**, and **Trans-Caucasia**.

This vast territory measures about 2,000 miles from the Black Sea on the north to the Strait of Bab el Mandeb on the south, and about 1,200 miles from Cape Baba on the west to the mouth of the *Shat el Arab* on the east. The total area is estimated at 730,000 square miles, or 12 times greater than the area of England and Wales.

**DIVISIONS.**—The Turkish dominions in Asia comprehend three distinct regions:—(1) Asia Minor; (2) Syria; and (3) the countries on the Euphrates and Tigris.

## I. ASIA MINOR.

**ASIA MINOR**<sup>1</sup> is an extensive peninsula, enclosed on three sides by the waters of the Black Sea, the Sea of Marmora, the *Ægean Sea*, and the Mediterranean.

The Sea of Marmora communicates with the Black Sea by the Strait of Constantinople (or Bosphorus), and with the Archipelago by the Strait of the Dardanelles—the ancient *Hellespont*. The Dardanelles, the Sea of Marmora, and the Strait of Constantinople separate the shores of Asia from those of Europe.

**COASTS.**—The western coasts of Asia Minor are indented by numerous gulfs, among which those of Mytilene, Smyrna, Samos, and Kos are the most extensive. On the south coast, are the gulfs of Makri, Adalia, and Alexandretta.

The Gulf of Alexandretta or *Iskenderûn* is the extreme eastern angle of the Mediterranean, dividing the shores of Asia Minor and Syria. It is about 45 miles long, and has a mean breadth of about 8 miles. The *extreme points* of Asia Minor are *Cape Injeh*, a few miles west of Sinope, on the north; *Cape Anamur*, on the south; and *Cape Baba*, the most westerly point of the Asiatic continent, on the west.

**ISLANDS.**—Numerous islands line the western coasts of Asia Minor, forming part of the extensive region known as the Archi-

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1. That is, the *Lesser Asia*, by distinction from the larger portion of the continent so called.

pelago. *Mitylene*, *Khio*, *Samos*,<sup>1</sup> *Kos*, and *Rhodes* are the largest amongst them. Off the south coast, in that part of the Mediterranean known as the Levant, is the large and important island of *Cyprus*.

The capital of *Khio* or *Chio*, which has an area of about 400 square miles, and, previous to the disastrous earthquake in 1881, had a population of 65,000, is the seat of government of all the Turkish islands, except *Samos*, which enjoys local self-government under a Christian prince. *Samos*, anciently one of the most renowned of the Greek islands, and the birthplace of Pythagoras, has an area of 200 square miles, and a population of 40,000, most of whom are Greeks. *Kos* lies off the gulf of the same name, and is a picturesque and fertile island, producing corn, cotton, wine, silk, &c. *Rhodes*, "the pearl of the Levant," is a rich and fertile island, the lower grounds producing corn, wine, and fruits, while the uplands are covered with fine forest. The strongly fortified capital, *Rhodes*, which was held by the Knights of St. John against the Turks for 214 years (1308-1522), was formerly one of the most magnificent cities in the world. Here, in ancient times, stood the celebrated "Colossus." *Mitylene* (population, 60,000) lies south of Cape Baba, about eight miles distant from the mainland. Its lower plains and valleys are fertile and highly productive, while the slopes of its rugged mountains are covered with pine forests. Its capital, *Castro* or *Mitylene*, was almost entirely destroyed by an earthquake in 1867.

*Cyprus* lies in the eastern basin of the Mediterranean, and measures 138 miles in length and 60 miles in breadth. Area, 3,584 square miles. Physically, *Cyprus* consists of three distinct regions, viz., a chain of mountains in the north, a mountain-region in the south, and a level tract between these mountains, hence called the Mesorea. The eastern part of the Mesorea is watered by the *Pedias*, the western by the *Potamos*. The plain is of exceeding fertility, and might be converted into one huge cornfield. There are no navigable rivers. There are several bays and harbours, but not a single harbour capable of giving shelter to a fleet. Except in certain places, the climate is salubrious. At an early period in history, *Cyprus* became known for its copper, which has indeed taken its name from that of the island itself. When under the Venetians, the population was probably about 1,000,000, but at present it is only 200,000, mainly Greeks. Agriculture is carried on under the most primitive manner, and only about eleven per cent. of the total area is cultivated. Some Turkish leather, silk, and cotton stuffs are manufactured. The capital is *Nikosia*, in the centre of the island. The other chief towns, *Famagusta*, *Larnaka*, and *Limasol*, are on the coast. By a convention signed on the 4th of June, 1878, the Sultan "assigned" *Cyprus* to England, to be occupied and administered as long as Russia should continue to hold *Batum*, *Ardahan*, and *Kars*.

**MOUNTAINS and PLAINS.**—The interior of *Asia Minor* is a plateau, ranging between 2,000 and 3,000 feet above the level of the sea. On the north and south, this plateau descends by successive terraces to the shores of the *Black Sea* and the *Mediterranean*; on the west, it gradually declines towards the *Ægean* seaboard. The most continuous chain of heights is that of the *Taurus*, which forms the southern border of the plateau towards the *Mediterranean*.

The highest summits of the *Taurus* hardly exceed 5,000 feet, but the passes through the chain consist of deep and rugged defiles. Some of the detached mountains of *Asia Minor* are of greater height: *Mount Argæus*, on the interior

1. About 30 miles south of *Samos* is *Patmos*, a barren islet, celebrated as the place where St. John was exiled, and where he wrote the Revelation.

plateau, is upwards of 13,000 feet, and *Mount Olympus*, in the north-west part of the peninsula, reaches 9,000 feet in height. *Mount Ida*, further west and beside the shore of the *Ægean Sea*, is nearly 5,000 feet.

**RIVERS.**—The largest river of Asia Minor is the *Kizil Irmak* (the ancient *Halys*), which flows into the Black Sea. Of the others, the principal are the *Sangarius* (also flowing into the Black Sea); with the *Caicus*, *Hermus*, *Cayster*, and *Mæander*,<sup>1</sup> which flow into the *Ægean Sea*.

**Lakes.**—The largest is the saltwater lake of *Tuz Gol*, situated on the interior tableland. There are, besides, several of smaller size, most of them without any outlet to the sea. They receive many of the smaller streams by which the high plains of the interior are watered.

## II. SYRIA.

SYRIA extends along the coast of the Mediterranean, from the Gulf of Iskenderûn southward to the border of Egypt. It comprehends a mountain region in the immediate neighbourhood of the coast, and a desert plain in the interior. This desert reaches east to the banks of the Euphrates. The south-westerly portion of Syria is the *Palestine* of sacred history.

**COASTS.**—From El Arish, on the Egyptian frontier, to Beyrout, the coast is regular, the only inlet being the small Bay of Acre. Thence north to Cape Khanzir it is bolder and more broken.

**Capes.**—The two chief headlands on the Syrian coast are *Cape Khanzir* and *Cape Carmel*. The former of them marks the southern limit of the Gulf of Alexandretta; Cape Carmel is on the south side of the Bay of Acre.

**MOUNTAINS.**—The mountains of Syria consist principally of two chains, which stretch in the direction of north and south, parallel to a large portion of the coast. These constitute the *Mount Lebanon* of the Bible, and were known to the Greeks and Romans by the names of *Libanus* and *Anti-Libanus*—the former being the chain nearer the coast, and the other the more inland chain. Between the two is a narrow valley—*El Bukaa*, the *Cœle-Syria* (*i.e.*, *Hollow Syria*) of classical geography. The higher summits of the Lebanon are between nine and ten thousand feet in altitude. *Jebel esh Sheikh*<sup>2</sup> (the *Mount Hermon* of Scripture) reaches an altitude of 9,200 feet, and its summit is covered with snow during the greater part of the year. *Dahr el Khotib*, to the north of *Mount Hermon*, is 10,050 feet in height.

1. These are properly the ancient names—those by which the rivers are known in classic geography and story. They are more familiar than the modern Turkish names:—*Sakaria* (*Sangarius*), *Bahâr Chai* (*Caicus*), *Gediz Chai* (*Hermus*), *Kuchouk Mendere* (*Cayster*), *Mendere Chai* (*Mæander*).

2. That is, "the Mountain of the Old Man." The word *Jebel* is the common Arabic term for mountain. *Sheikh* is the name given to the head of an Arabic tribe or family—commonly an old man. Other common Arabic terms are:—*ras*, cape; *nahr*, river; *bahr*, lake; and *wady*, a water-course.

The chains of Mount Lebanon do not reach the entire length of the Syrian coast. To the southward of Mount Hermon the country consists of a high plateau, intersected by a deep ravine in the direction of north and south, and declining on the west towards the Mediterranean. This ravine forms the bed of the river Jordan and the Dead Sea.

In the extreme north of Syria there is also a long valley, which lies between the mountain-chain that borders the coast and a more inland range. The river *Orontes* flows through this valley.

The valley of the Orontes, the plain between the parallel chains of Libanus and Anti-Libanus, with the valley of the Jordan, together form a long and nearly continuous depression, which runs through the whole length of Syria in the direction of north and south. The valley of the Jordan and the bed of the Dead Sea are the deepest part of this depression, which sinks considerably below the average of the earth's surface.

**RIVERS.**—The two chief rivers of Syria are the *Orontes* and the *Jordan*. The former has a northwardly course, and enters the Mediterranean; the latter flows to the southward, and falls into the Dead Sea after an extremely tortuous course.

1. The *Orontes* (Nahr el Asy) rises in the upper portion of the valley of Coele-Syria, between the Libanus and Anti-Libanus, and flows north as far as Antakia (*Antioch*), where it curves west, finally entering the Mediterranean near the port of Suedia (the ancient *Seleucia*).

2. The *Jordan* rises on the slopes of Mount Hermon, and flows through Lakes Merom and Tiberias to the Dead Sea. The direct length of the depression through which it flows, from Lake Tiberias to the Dead Sea, is only 70 miles, but the course of the river is so tortuous that it exceeds 200 miles between the same points. The current of the Jordan is very swift, and there are numerous rapids, which render it unnavigable.

**LAKES.**—The principal are the *Dead Sea* and the *Lake of Tiberias*.

1. The *Sea*, or rather, *Lake of Tiberias*,<sup>1</sup> is a body of fresh water: the river Jordan passes through it, and flows thence onward to the Dead Sea. The valley of the Jordan is intensely hot, owing to its great depression below the country upon either side.

2. The *Dead Sea*,<sup>2</sup> consists of water which is intensely salt<sup>3</sup>—so much so as to render it unfit (as the name implies) for the support of animal life. No fish exist in its bitter and heavy waters, and the aspect of the surrounding tract of country is arid, desolate, and almost lifeless. The surface of the Dead Sea is nearly 1,300 feet lower than the level of the Mediterranean.

### III. COUNTRIES ON THE EUPHRATES AND TIGRIS.

These comprehend a high tableland—the plateau of Armenia—in which the rivers have their origin, and an extensive lowland plain through which they afterwards flow on their way to the Persian Gulf.

1. Also called the "Sea of Galilee," "Sea of Gennesaret," and the "Sea of Chinnereth." The Turkish name is "*Bahr Tabariya*," the "Sea of Tiberias."

2. Known to the ancients as *Lacus Asphaltites*, from the asphalt or bitumen which floats on its

waters. The modern Turkish name is *Bahr Lüt*, the "Sea of Lot."

3. The proportion of saline ingredients is about 25 per cent., that is, seven times the usual proportion of salts in the waters of the ocean (3 or 4 per cent.).



**MOUNTAINS.**—The plateau of Armenia lies at an elevation of 6,000 feet above the sea, and the mountains by which it is crossed reach 4,000 feet and upwards above its level—so that their summits are more than 10,000 feet above the sea.

**Plains.**—Below the mountain region, to the south-eastward, are the plains of El Jezireh and Irak Arabi, through which the Euphrates and Tigris flow. The Plain of El Jezireh (which coincides with the ancient *Mesopotamia*) is enclosed between the rivers, which are there at a wide distance apart. The Plain of Irak Arabi, further to the south-east, and at a lower level, corresponds to the ancient *Babylonia*.

**RIVERS.**—The *Euphrates* and *Tigris* are the chief rivers of this region. The Euphrates, which is 1,700 miles long, is the largest river in Western Asia. The Tigris, which is 1,100 miles in length, joins the Euphrates about 100 miles above the Persian Gulf; the united stream bears locally the name of *Shat el Arab*, or the “River of the Arabs.”

1. The *Euphrates* is formed by the junction of two streams, one of which rises in the Soghanly Mountains, and the other in the Armenian Mountains near Bayazid. Breaking through the Taurus chain, it flows through the broad Plain of Irak Arabi, in a generally south-easterly direction to Kurnah, where it is joined by the Tigris. The only large tributary is the *Khabur*, which flows from the Highlands of Kurdistan, and joins the Euphrates at Kerkesiyeh. This great river is historically famous from the fact that on its banks stood *BABYLON*, the capital of the old Babylonian Empire. It is navigable for river steamers for 1,100 miles.

2. The *Tigris* rises in the Armenian highlands, and near Mosul (opposite which are the ruins of *NINEVEH*, the famous capital of the ancient Assyrian Empire) enters the plain, through which it flows south-eastwards to Kurnah, where it joins the Euphrates. The principal tributaries are the *Great Zab*, the *Little Zab*, and the *Diyalah*, all on the left bank. At Bagdad, the Tigris bends to within 20 miles of the Euphrates.

**Lakes.**—*Lake Van* is within the Turkish portion of the Armenian Plateau. It is about 80 miles long and 30 broad, and lies at an elevation of more than 5,000 feet above the sea. A few rivers flow into it from the adjacent highlands, but it has no outlet, and consequently its waters are salt.

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**CLIMATE.**—The climate of Asiatic Turkey is for the most part warm, but is greatly varied by the inequalities of elevation and physical aspect which distinguish its different regions.

The winters of the Armenian tableland are excessively severe, and the heat of summer is also intense. The interior of Asia Minor exhibits similar differences of temperature, though in a more moderate degree. The coast regions of Syria and Asia Minor have generally a warm and delightful climate. The seasons of rain and drought are of regular recurrence, and the operations of agriculture are of necessity regulated by them.<sup>1</sup>

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1. In Palestine (which is part of Syria), the winter months are the season of the most abundant rains. Then a short period of dry weather ensues, followed by a further season of rain. After this a long dry season succeeds, lasting from the middle of April to the end of September.

**PRODUCTIONS.**—The vegetable and mineral productions of Asiatic Turkey are varied and valuable, nevertheless, as in European Turkey, the great natural wealth of the country is but little developed.

Among the productions are a variety of rich *fruits*—raisins, figs, almonds, oranges, &c.—and other valuable plants. The vine grows luxuriantly in the watered valleys, and the date-palm flourishes on the borders of the desert. Wheat, barley, rice, and maize, with tobacco, hemp, and flax, are also grown. The mineral products include coal, together with rich ores of iron, lead, copper, and other useful metals, none of which are worked to any extent.

Horses, cattle, sheep, and goats are bred in large numbers, but the camel is the ordinary beast of burden. Silkworms are largely reared in Asia Minor and Syria, and there are important sponge fisheries off the Mediterranean coast.

**INHABITANTS.**—The population of Turkey in Asia is estimated to amount to 16½ millions, an average of only 22 persons to the square mile.

**Race and Language.**—The inhabitants of Asiatic Turkey form a motley assemblage of various nations, comprising—besides Turks, the ruling people—Greeks, Syrians, Jews, Arabs, Armenians, Turkomans, Kurds, Druses, and many other tribes of mountaineers. The Turks themselves are relatively more numerous in Asiatic Turkey than in the European provinces of the empire, and constitute a majority of the whole. The official language is, of course, the Turkish, but it has never supplanted any of the numerous languages in common use among the various nations. In fact, so great is the diversity in race and language of the peoples of Asiatic Turkey, that, although at present politically united, it seems improbable that they will ever fuse into one nation. No less than 13 millions are Mohammedans; the Greeks and Armenians profess Christianity,<sup>1</sup> and there are about 250,000 Jews.

**INDUSTRIES.**—Industrial pursuits generally are at a low ebb. The bulk of the population is engaged in agriculture, which, however, is pursued in a very inefficient manner, and scanty harvests are of frequent occurrence.

Some manufactures of silk and cotton fabrics, leather, and various articles of an ornamental description, are carried on in the larger towns. The Turkey carpets, woven by the women of the nomad tribes in the interior of Asia Minor, are highly prized both in Europe and in the East. But almost all the textile and metal industries of the country, many of them at one time carried on on a large scale, have been practically ruined by European competition, and the famous silks and swords of Damascus, the muslins of Mosul, &c., are now superseded by European goods.

**Commerce.**—The amount of foreign trade is considerable. It is carried on chiefly with Great Britain and other European countries, from various ports on the coasts of Asia Minor and Syria; and with the countries to the east by means of caravans, which cross the Syrian and Arabian deserts.

Smyrna, on the coast of the *Ægean* Sea; Trebizond, on the Black Sea; Beyrout, on the Syrian coast; and Basra, on the Shat el Arab, near the head

1. About 500,000 Syrians also profess Christianity. On Mount Lebanon are the semi-independent Maronites, a Christian sect founded in the fifth century, and the Druses, a fanatical tribe professing a peculiar form of Mohammedanism. In 1900, the Druses massacred 12,000 Maronite Christians, and destroyed most of their villages and churches.

of the Persian Gulf, are the principal seats of maritime trade. The cities of Aleppo, Damascus, Bagdad, and Erzerum are the chief centres of the caravan traffic.

The staple exports are fruits—raisins, figs, oranges, &c.—wine, opium, olives, gums, wax, sponge, meerschaum, corn, cotton, raw silk, tobacco, camel's hair, Angora wool, and other native products and manufactured goods, such as shawls and carpets from Smyrna, Turkey leather, &c. The chief imports are textile fabrics and metal wares.

The means of communication are very defective, and the internal trade is carried on mostly by caravans, there being few good roads, and only about 400 miles of railway.

**GOVERNMENT.**—Asiatic Turkey is under the same general government as Turkey in Europe. The Sultan, resident at Constantinople, delegates authority to the various Pashas, who exercise nearly absolute rule in the different vilayets, or provinces.

**DIVISIONS.**—The whole of Asiatic Turkey is divided into *Vilayets* or pashaliks, each under the government of a Pasha. Each vilayet is divided into *Sanjaks* or provinces, which are subdivided into *Kaasas* or districts.

For convenience of description, the vilayets and towns of Asiatic Turkey are arranged under the three great divisions of *Asia Minor*, *Syria*, and the *Countries on the Euphrates and Tigris*.

ASIA MINOR comprehends the vilayets or governments of Trebizond, Kastamuni, Sivas, Angora, Konieh, Adana, all of which are named after their chief towns, and include the country to the north and east of the Gulf of Adalia. The western division of the peninsula includes the vilayets of Khodavendikiar or Brusa (capital, *Brusa*), Karassi (capital, *Balikesri*), and Aidin (capital, *Smyrna*). The capital of the Turkish islands is *Khio*.

**SMYRNA** (200), is the largest city of Asia Minor and a chief emporium for the trade of the Levant.<sup>1</sup> The population comprises an unusual number of Greeks and other Europeans, by whom an extensive commerce is carried on. Smyrna derives interest from its antiquity; it existed many centuries before the Christian era, and was one of the most famous cities of *Ionia*. It has also the distinction of being one of the Seven Churches of the Apocalypse.

**Brusa** or **Broussa** (36), the ancient *Prusa* of Bithynia, lies at the foot of *Mount Olympus*; not far to the eastward are the small towns of *Isnik* (the ancient *Nicæa*), and *Ismid*, the *Nicomedia* of ancient story. The latter place lies at the head of an arm of the Sea of Marmora. Both *Kutalah* (60) and *Angora* (30)—the ancient *Ancyra*—are inland cities, the latter famous for the breed of goats, with fine silky hair, that are

1. The eastern part of the Mediterranean is commonly called the Levant. The name is Italian in its origin, and signifies the East.

reared in its neighbourhood. Angora, like so many other among the cities of western Asia, has also historic fame. Sinope<sup>1</sup> is a seaport on the Black Sea, about the middle of the coast-line which forms the northern side of the peninsula. Sivas (48), the chief place in the vilayet of the same name, lies near the upper course of the Kizil Irmak (the ancient *Halye*), a river which once formed the limit between the empires of *Lydia* and *Media*. Trebizond (45), the *Trapezus* of classic story, is a flourishing seaport, and possesses the chief part of the commerce of the Euxine.<sup>2</sup> Koniah (25), on the interior plains within the southern division of the peninsula, is chiefly interesting as representing the ancient *Iconium*, familiar in connection with the history of St. Paul. Kaisarieh (60), the ancient *Cæsarea* of Cappadocia, and a place of considerable trade, lies at the base of Mount Argæus. Adana and Tersus (the ancient *Tarsus*)—the former on the river Sihun (the ancient *Sarus*), the latter on the little stream of the Tersus (the ancient *Cydnus*)—lie in the Cilician plain to the south of the Taurus Mountains. Tarsus was distinguished as the birthplace of the Apostle Paul. Marash is further to the north-east, near the river Jihun—the *Pyramus* of ancient geography.

Nearly every part of Asia Minor (and, indeed, of Western Asia in general) exhibits remains of antiquity; its plains and hillsides, its rivers and mountain passes are richly stored with historic associations, and its towns—now often in ruins—display the abundant traces of former splendour. Troy stood in the north-western corner of this peninsula; *Smyrna*, *Ephesus*, *Miletus*, and other famous cities of Ionia were on its western shores; *Sardis*, *Philadelpia*, *Laodicea*, *Nicaea*, *Angora*, *Iconium*, *Cæsarea*, on its interior plains. The invincible phalanx of the Macedonian conqueror<sup>3</sup> in ancient times, and the armies of the Crusaders in a more recent period, have marched through its plains, and the footsteps of Christian apostles have imparted sanctity to its soil.

SYRIA<sup>4</sup> embraces the three divisions of Aleppo, the Lebanon, and Syria Proper. Its south-western portion corresponds to the ancient Palestine—the allotted inheritance of the Jewish nation, and the "Holy Land" of the Christian.

The chief cities of modern Syria are Damascus, Aleppo, Homs, Hamah, Antioch, Jerusalem, Nablus, and Tiberias—all of them inland; with Beyrout, Tripoli, Latakia, Sidon, Tyre, Acre, Jaffa, and Gaza, which are on or near the coast. Jerusalem, Nablus, Tiberias, Jaffa, and Gaza fall within the former limits of the Holy Land.

**DAMASCUS**<sup>5</sup> (200) is now the largest inland city of Syria, and a great centre of caravan trade. It stands in a fertile plain at the foot of the range of Anti-Libanus, and beside the little stream of the Barada, the *Abana* of Scripture (II. Kings v., 12).

1. The Turkish fleet was destroyed here in 1853.

2. That is, the Black Sea—the *Pontus Euxinus* of ancient geography, whence the name of Euxine is often given to it.

3. Alexander the Great.

4. Syria is divided into 6 vilayets, namely:—Aleppo, Zor, Syria, Beyrout, Jerusalem, and

Lebanon. Lebanon and the island of Samos are under Christian governors, the rest under Turkish governors.

5. Damascus, Turk, *Dimeşk*; the fabric known as *damašk* was first made in, and takes its name from this town.

**Aleppo** (120), in northern Syria, was formerly more populous, but it has been repeatedly injured by earthquakes,<sup>1</sup> to which every part of Syria is more or less liable. **Homs** and **Hamah** are both within the valley of the Orontes, the chief river of northern Syria. Hamah corresponds to the *Hamath* of Scripture. The most famous locality within the valley of the Orontes is **Antakia** or *Antioch*—no longer the magnificent city of a former age, but a small provincial town. It stands a few miles above the mouth of the Orontes, on the southern bank of the river. **Alexandretta**<sup>2</sup> or **Iskenderûn**, the most northerly of the Syrian coast-towns, stands on the shore of the gulf called by its name, and serves as the port of Aleppo. **Latakia** (the ancient *Laodicea*), now chiefly noted for the tobacco grown in its vicinity, is to the south of the Orontes. **Tripoli** and **Beyrout** follow in the same direction. Beyrout (40) constitutes the port of Damascus, and is now the chief seat of Syrian commerce. To the south of Beyrout are **Saida** (the ancient *Sidon*); **Sûr** (the *Tyre* of antiquity); and **Acre**, the *Accho* or *Ptolemais* of Scripture and the *St. Jean d'Acre* of the Crusaders; all three are now comparatively small places, but Acre is a strong fortress. The Bay of Acre is bounded on the south by the promontory of Carmel, which is within the limits of the Holy Land.

The most important locality in Palestine is **JERUSALEM**<sup>3</sup> (70), which stands on a rocky platform—enclosed on three sides by deep ravines—about midway between the Mediterranean and the Dead Sea. Jerusalem, consecrated by our Saviour's sufferings, has for centuries remained a mere Turkish provincial town, but the recent persecutions in Russia have caused an enormous influx of Jews into Palestine, and there are now 50,000 of them in Jerusalem alone, while large numbers have settled in other parts of their ancient land.

**Bethlehem**, the scene of our Lord's nativity, is a village lying a few miles south of Jerusalem. **Hebron** is further south; it contains the *Cave of Machpelah*, regarded as holy alike by Mohammedans and Jews. **Jaffa** (the ancient *Joppa*), on the coast, is the port of Jerusalem, and a place of some trade. A railway from Jaffa to Jerusalem is now being constructed. **Nablus**—the *Shechem* of Scripture and the *Neapolis* of the Greek writers—is to the north of Jerusalem, midway between the Mediterranean coast and the valley of the Jordan. **Sebastieh** (the ancient *Samaria*) is to the west of Nablus. **Nazareth** is further north, and only five miles distant from the base of *Mount Tabor*, which rises in conical form above the fertile valley of *Esdraïlon*. **Tiberias** is a small city lying on the western shore of the beautiful Lake of Tiberias, or Sea of Galilee. **Gaza**, in the south-west of Palestine, is of some commercial importance, derived from its position on the line of route between Syria and Egypt. It occupies the site of the ancient *Gaza*, one of the chief cities of the Philistines.

\* Among the numerous remains of former greatness which belong to Syria, two sites command special notice on account of their architectural beauty. These are **Baalbec** and **Palmyra**. The former lies to the north-west of

1. In that of 1822, upwards of 9,000 persons perished.

2. The name Iskenderûn is derived from that of Alexander, known as "Iskender" in modern oriental story and tradition. The name of the great Macedonian is extensively diffused through Western Asia.

3. Jerusalem was wrested by David from the

Jebusites in a.c. 1046, and was taken by Nebuchadnezzar three times (a.c. 605, 598, 588). The city was besieged and taken by the Romans under Titus a.d. 70—surrendered to the Saracens 637—stormed and taken by the Crusaders under Godfrey of Bouillon, 1099—recaptured by Saladin, 1187—finally taken in 1517 (and since retained) by the Ottomans or Turks.

Damascus, in the valley which is enclosed between the parallel chains of Libanus and Anti-Libanus; it represents the ancient city of *Heliopolis*, and still exhibits the remains of its magnificent temples. Palmyra, the *Tadmor* of Scripture, is to the north-eastward of Damascus, within a small oasis in the heart of the Syrian Desert. It has the beautiful remains of an ancient temple of the sun. The desert, which borders the highlands of Syria to the eastward, and which stretches thence to the banks of the Euphrates, exhibits features which differ in some essential particulars from those that are commonly associated with the idea of the wilderness. It has no perennial streams, and hence, during the summer and autumn months, when it is parched by the sun's burning rays, exhibits an arid and comparatively lifeless surface, except only where an occasional spring of water creates a surrounding oasis. But at other seasons, when the rains of winter and early spring refresh the thirsty ground, the desert becomes a carpet of verdure, strewn with wild flowers of the most brilliant hue. This is the "glory of the wilderness," destined to pass away with the returning heat of summer.

The COUNTRIES ON THE EUPHRATES AND TIGRIS comprehend the Vilayets or provinces of **Erzerum, Van, Bayazid, Bitlis, Diarbekir, Bagdad, Mosul, and Basra**—all of them named after their chief towns.

The first three of these vilayets belong physically to the high tableland of Armenia. The last three embrace the valleys of the Euphrates and the Tigris below the mountain region. The vilayets of Bitlis and Diarbekir are both included in the region known as **KURDISTAN**, which lies between Asia Minor and Persia, and consists principally of rugged mountain chains, with intervening valleys.

The city of **Erzerum** (60) stands near the source of the more northwardly of the two arms of the Euphrates, on a high plain, 6,000 feet above the sea. **Kars**, noted for its gallant defence in 1855 and 1877, lies to the north-east of Erzerum. Along with Ardahan and Batum, it was ceded to Russia in 1878. **Bayazid** is near the base of Mount Ararat, and close to the point where the frontiers of Turkey, Persia and Russia converge. The town of **Van** (30) stands on the east shore of the extensive lake called by its name. **Bitlis** (25) the most considerable place in Kurdistan, is not far from the south-western shore of Lake Van, on a stream which joins the Tigris. **Diarbekir** (40), the ancient *Amida*, is on the Tigris, forty miles below its source. The city of **Urfah** or **Orfah** (20), the *Edessa* of the Crusaders, lies within the plain of El Jezireh, south of the mountain region. This plain coincides with the *Mesopotamia*<sup>1</sup> of Greek geography, and the *Padan-Aram*, or *Aram-Naharaim*, of the early Scripture history. **Mosul**<sup>2</sup> (45), on the right or western bank of the Tigris, is chiefly noteworthy from its proximity to the remains of *Nineveh*, on the opposite bank of this river. **Bagdad**<sup>3</sup> (180), on the Tigris, is the great city of this region—superior in size and population to any other city in the eastern division of Asiatic Turkey. **Basra** (40)—formerly of more note as a commercial city than at present—lies on the Shat el Arab, below the junction of the Euphrates and the Tigris.

1. That is, "in the middle of the rivers"—the Euphrates and Tigris. *Aram-Naharaim* (Syria-between-the-Rivers) has the same meaning in Hebrew.

2. The fine cotton cloth called *muslin* was originally manufactured at Mosul, hence the name.

3. Founded, A. D. 762. Taken by Tamerlane, 1401.

∴ The plain of Irak Arabi (as the lower portion of the region watered by the Euphrates and Tigris is called) is the *Babylonia* of ancient geography. It is now a marshy tract, even more thinly peopled than other parts of Asiatic Turkey, and the sands of the adjoining desert press closely on the western bank of the Euphrates. But every portion of the plain exhibits remains of former population and culture.

Among the many ancient sites which belong to the lands watered by the Euphrates and Tigris, two attract especial notice. These are NINEVEH and BABYLON, the former the capital of the Assyrian, and the latter that of the Babylonian, Empire. The remains of Nineveh are found on the eastern bank of the Tigris, opposite the modern city of Mosul. The ruins of Babylon lie on either bank of the Euphrates, in the neighbourhood of the small modern town of Hillah (to the south of Bagdad). The treasures of ancient art, brought within recent years from the site of Nineveh, have enriched our museums. The remains of Babylon have not yet been fully explored.

#### QUESTIONS ON ASIATIC TURKEY.

1. How is Asiatic Turkey bounded?
2. What three great divisions does it embrace? Point to each on the map.
3. What straits and sea divide Asia Minor from the European continent?
4. What islands adjoin the western and southern shores of Asia Minor?
5. What kind of country (as to physical features) is the interior of Asia Minor?
6. In what part of Asia Minor are Mounts Argæus, Olympus, and Ida?
7. Name the principal rivers of Asia Minor, and the seas into which they flow.
8. Point out on the map the limits of Syria in the direction of north, south, and east.
9. What mountain-region adjoins the coast of Syria, and what is the name of the highest summit?
10. What two rivers flow through the long valley which stretches through Syria?
11. Name and point out on the map the two principal lakes that belong to the valley of the Jordan.
12. What kind of region do the rivers Euphrates and Tigris water?
13. What lake is within the Turkish portion of Armenia?
14. State what you know concerning the climate of Turkey in Asia.
15. Mention some of the fruits and other plants that are among the productions of Asiatic Turkey.
16. In what parts of Turkey in Asia is coal found? What other metals occur?
17. What other races besides Turks form part of the population?
18. What three cities are the chief seats of the maritime commerce of Turkey in Asia? What three of its inland trade?
19. How is Turkey in Asia divided? How many of these divisions are within Asia Minor?
20. In what part of Asia Minor are the following places—Smyrna, Brusa, Konieh, Trebizond, and Adana? Find out their places on the map.
21. With what ancient cities do Brusa, Konieh, Isnik, Izmid, Angora, and Kaisariëh correspond?
22. On what river does Sivas stand, and what empire did it divide?
23. Point out Tarsus on the map. By what is Tarsus distinguished, and on what river does it stand?
24. Mention some of the great cities of antiquity that were situated within Asia Minor.
25. What portion of Syria corresponds to Palestine or the Holy Land? Point to this part on the map.
26. Name some of the chief inland cities of Syria, pointing out their places on the map. Which amongst them are within Palestine?
27. Name the chief maritime cities of Syria.
28. On what river does Damascus stand? By what name is this river referred to in Scripture?
29. On what river does Antioch stand? What other towns are within the valley of the same stream?
30. To what ancient cities do the modern towns of Latakia, Saida, Sür, and Acre correspond?
31. What kind of site does Jerusalem occupy?
32. Where are Bethlehem, Hebron, Nazareth, Tiberias, and Gaza? Point them out upon the map.
33. Where is the town of Nablus? What ancient city does it represent?
34. Where are Hainbek and Palmyra? For what are they distinguished?
35. What are the general features of the Syrian Desert?
36. Where is Kurdistan, and what kind of a country is it?
37. Where are Erzerum, Kara, Bayazid, Van, and Diarbekir?
38. Where are Urfeh and Mosul? To what city of a former period does Urfeh correspond?
39. Where are the plains of El Jezireh and Irak Arabi? By what names were they formerly known?
40. Where are Bagdad and Basra? For what is Bagdad noteworthy?
41. What two great cities of antiquity, now in ruins, belong to the region of the Euphrates and the Tigris?

## A R A B I A .

**ARABIA**<sup>1</sup> is a large country in the south-west of Asia, and forms the most westerly of the three vast peninsulas of southern Asia.

**BOUNDARIES.**—Arabia is bounded on the *north* by Syria, on the *west* by the Red Sea, on the *south* by the Gulf of Aden and the Arabian Sea, and on the *east* by the Gulf of Oman and the Persian Gulf.

**EXTENT.**—Its *area* is estimated at  $1\frac{1}{4}$  million square miles, or about twenty times greater than that of England and Wales.

A straight line from the head of the Gulf of Akaba to Ras el Had measures about 1,650 miles. The distance from Mocha on the Red Sea to Muscat on the Gulf of Oman is about 1,250 miles. In the north, the Peninsula narrows to about 800 miles between Makna, on the Gulf of Akaba, and Koweit (Korein), near the head of the Persian Gulf.

**COASTS.**—The Arabian peninsula is washed on three sides—on the east, the south, and the west—by the sea.

The Red Sea, which forms the western limit of Arabia, divides, at its northern extremity, into two gulfs. The more westerly of these is called the Gulf of Suez (connected by the *Suez Canal* with the Mediterranean), the more easterly is the Gulf of Akaba. The tract enclosed between them is the Peninsula of Sinai. The shores of the Red Sea are lined by coral reefs, which make the navigation dangerous; but its mid-channel is open and deep. The Strait of Bab el Mandeb connects the Red Sea with the Gulf of Aden and the Indian Ocean. The Persian Gulf has on its western side an extensive submarine bank, upon which pearl-fishing is pursued. The Strait of Ormuz connects the Persian Gulf with the Gulf of Oman, which opens into the Indian Ocean.

Of the few *islands* of Arabia, the only noteworthy ones are the Farsan and Kamaran Islands in the Red Sea, off the coast of Yemen; Perim, in the Strait of Bab el Mandeb; the Kuria Muria Islands, off the south coast; and the Bahrein Islands, the centre of a flourishing pearl-fishery, in the Persian Gulf, off the coast of El Hassa—all of which islands, except Farsan, either belong to, or are under the protection of, Great Britain.

**NATURAL FEATURES.**—Arabia has mountain chains lying in a parallel direction to its seaward borders—west, south, and east—and there are also some high ranges upon the interior plateau.

1. Of the coast mountains, the most important are those which nearly fill the small Peninsula of Sinai. The highest peak of the *Sinai Mountains* reaches 9,800 feet above the sea. A minor chain also skirts the south coast, from Aden on the west to the highlands of Oman in the south-east of the peninsula. *Jebel Akhdar*, in Oman, attains an elevation of 9,900 feet above the sea.

2. The interior plateau includes a series of high and desert plains, destitute of perennial streams, but generally adapted for pasturage. This central table-

1. Called by the Arabs "Jezereet El Arab," | 2. *i. e.*, the twisted mountain.  
the Peninsula of the Arabs.



land is known as the *Nejd*, and culminates in the *Jebel Toweyk* range, which has an average height of 8,000 feet above the sea. The highlands of the *Nejd* are bounded on the north by a narrow neck of the *Nefud* or Sandy Desert, beyond which lies the minor plateau of *Jebel Shammar*, which is crossed by two ranges, the *Jebel Aja* and *Jebel Selman*. The highest point in the former is supposed to be about 6,000 feet above the sea. A much greater expanse of desert lies between *Jebel Shammar* and the fertile and well-peopled oasis of *Jof*, to the north-west.

3. The Arabian Desert presents, for the most part, a gravelly or sandy surface, but is in some places covered with high and barren masses of hill, forming a rocky or stony wilderness. This is the case in the north-western portion of the country—including the Sinai Peninsula, and the adjacent tract towards the border of Syria—which forms the *Arabia Petraea*<sup>1</sup> (i.e., the Rocky Arabia) of ancient geography. But the *Nefud* or Sandy Desert, between *Jof* and the *Nejd*, is not, as generally supposed, destitute of vegetation; on the contrary, "not only are the hollows well clothed with grass, but also every part of the plain."

A low and narrow plain—called the *Tehama*—stretches round the coast of the Arabian peninsula, between the sea and the adjacent mountain region. This plain is arid, destitute of water, and intensely hot.

Arabia has neither *rivers* nor *lakes*. There are numerous water-courses or *wadys*—that is, beds of streams—which become rapid torrents during the season of rain, but are dry for the greater part of the year.

**CLIMATE.**—The climate of Arabia is hot and dry, except, perhaps, in the higher parts of the mountain regions, towards the coast. The narrow belt of the *Tehama* is intensely hot and arid, even more so on the side of the Persian Gulf than on the other coasts of the peninsula. Rain very seldom falls in this region.

Contrary to the generally received opinion that the *Nefud* or Sandy Desert of the interior was periodically swept by the pestilential simoom, Mr. Blunt states that while "sand-storms were common but not dangerous to travellers, the simoom was not even known by name," and that his guide "denied positively that such a phenomenon had occurred within his forty years' experience."

**PRODUCTIONS.**—The only parts of Arabia that possess natural fertility are found within the mountain region chiefly towards the south-western borders of the peninsula. Rain is here more frequent, and there are perennial springs. This was accordingly distinguished by the ancients as *Arabia Felix* or Arabia the Happy.

The *vine*, *fig*, *peach*, *almond*, and many other fruits flourish in this region, and the *coffee-shrub* is abundantly cultivated. The *date-palm* also flourishes there, and is found, besides, in every oasis of the Arabian Desert.

**INHABITANTS.**—Arabia is supposed to have not less than 12,000,000 inhabitants, but nothing certain is known on this head.

There is a characteristic difference between the Arabs of the desert, who dwell in tents and wander from one place to another, and the dwellers in towns, who have fixed places of abode. The Arabs of the desert are called Bedouins,

1. Greek, *petra*, a rock. The ancients divided Arabia into *Arabia Petraea*, or the Rocky, in the north-west; *Arabia Felix*, or the Happy, in the south-west; and *Arabia Deserta*, or the Desert, in the centre.

and their way of life naturally leads to numerous points of difference between them and the dwellers in fixed habitations. Their wealth consists in their flocks and herds—sheep, goats, camels, and horses. They look with contempt on the dwellers in towns, and the sense of freedom which accompanies existence in the wilderness compensates for the many deprivations which such a way of life involves. Even in the desert, however, there are recognised limits to the different tribes beyond which they never pass.

**Religion.**—By far the greater majority of the Arabs profess *Mohammedanism*; and the region of the El Hejaz, bordering on the Red Sea, is indeed the Holy Land of the Mohammedans, as it contains *MECCA*, the birthplace, and *MEDINA*, the burialplace, of Mohammed. The people of the Nejd belong to the Wahabee sect, founded about A.D. 1750 by Abd el Wahab, a Mohammedan reformer, who sought to restore the religion to its original purity by following the strict letter of the Koran.

**INDUSTRIES.**—There is little of manufacturing industry in Arabia, but the trade which passes through parts of the country is considerable. This is wholly carried on by *caravans*, that is, companies of persons, who associate together for mutual protection in crossing the wilderness, consisting of merchants, guides, soldiers, pilgrims, and various followers, with their camels and horses.

The camel is uniformly employed as the beast of burden, and that animal is peculiarly suited to the passage of the arid wastes of Western and Central Asia. The caravan traversing the Arabian or the Syrian Desert, with its attendant train of camels, is the earliest and most enduring of the pictures of Oriental life, and all its essential features are the same now that they were upwards of three thousand years ago.

**GOVERNMENT.**—The people of Arabia have been from the earliest ages divided into tribes, the government of which is patriarchal, that is, the head of each tribe—or *sheikh*, as he is termed—occupies, in regard to its members, the place of the father of a family. The laws, customs, and institutions of Arabia all proceed upon this assumption of patriarchal authority—the only mode of government suited to the dwellers in the wilderness.

Arabia has, consequently, never been subject, as a whole, to any single power. The Emir of the Wahabees was a few years ago the most powerful of the native rulers; but at present the Wahabee sultanate of the *Nejd* has been divided into three States, and the supreme power in Central Arabia has passed into the hands of the Emir of *Jebel Shammar*, who resides in the fortified town of Haïl. The whole of *Oman*, in the south-east, is still nominally subject to the Sultan of Muscat, its chief town. The country between the south and the desert, known as *Hadramaut*, is occupied by independent Bedouin tribes, who own no sovereignty but that of their own chiefs. The region of *El Hejaz* is nominally subject to the Sultan of Turkey, who is represented by an officer (styled the great *Sherif*) resident at Mecca. *Yemen* forms one of the Turkish vilayets. *El Hassa*, the conquered district bordering on the Persian Gulf, is styled by the Turks, "our vilayet of Nejd," but the Turks have no influence whatever over any of the tribes of Central Arabia, although the Emirs of *Riad* and *Jebel Shammar* pay a nominal tribute as an acknowledgment of the suzerainty of the Sultan. The *Sinai* region falls within the dominions of the Khedive of Egypt. *Aden* is a British possession, and the adjoining territory is under British protection.

**Northern Arabia** includes the *Sinai mountain region*, which is politically attached to Egypt, and the *great desert* between the Gulf of Akaba and the head of the Persian Gulf, which is broken only by the fertile and populous oasis of *El Jof*.

The *Sinai mountain region*, situate at the head of the Red Sea, fills the small peninsula between the Gulfs of Suez and Akaba, and the high grounds which it comprises stretch thence to the southern borders of Syria. Wandering Arabs or Bedouins are almost the sole inhabitants of the entire region, which is a wilderness of rocks and mountains, alternating with arid plains and gravelly beds of torrents, destitute of running water during three-fourths of the year. This region was the scene of the forty years' wandering of the Israelites. **Mount Sinai**, whence the Law was delivered to the assembled tribes, is found among the central and highest cluster of mountains, in the very heart of the peninsula.

A long valley, known as the *Wady el Arabah*, stretches northward from the head of the Gulf of Akaba to the southern limits of the Dead Sea, in the same general direction as the depression which reaches through the whole length of Syria. The mountains which border this valley on its eastern side are the *Mount Seir* of the Bible, and one of them coincides with *Mount Hor*, the scene of Aaron's death. The ancient city of *Petra*—now marked by the numerous tombs cut in the solid rock—is found within a deep recess in the heart of the mountains, near the eastern foot of Mount Hor.

**Western Arabia** is politically divided into the two Turkish Vilayets of *El Hejaz* and *El Yemen*.

The region of El Hejaz is the Holy Land of the Mohammedans. It includes the cities of **MECCA** (45) and **Medina**—the former the birthplace, and the latter the burial-place, of Mohammed, the Arabian prophet. Mecca is the Holy City for perhaps 200 millions of people, Mohammedans of all sects and nations turning towards it at the hour of prayer. *Jidda* (30), on the Red Sea, is the port of Mecca; *Yembo* is the port of Medina, which is 130 miles inland. **SANA** (50), the chief city of Yemen, is in the heart of the coffee district, about 100 miles from the coast. *Mocha*, on the Red Sea, was formerly its chief port, but it is now supplanted by *Hodeida*, which is further northward.

**Southern Arabia** includes the vast territory of *Hadramaut*, and the British Colony and Protectorate of *Aden*.

**Hadramaut** is occupied by independent Bedouin tribes, who may be so far regarded as within the British "sphere of influence," but not directly controlled like the people within the colony of Aden and the adjoining Protectorate.

**Aden**, situated on the shore of the gulf of that name eastward of the Strait of Bab el Mandeb, belongs to Britain, and is a station on the line of communication between England and India by way of the Mediterranean and the Red Sea.

**Eastern Arabia** includes the Turkish Vilayet of *El Hassa*, and the Sultanate of *Oman*.

**El Hassa** includes the coast territory between the head of the Persian Gulf and the peninsula of *Katar*. The chief places are *El Khatif*, *Koweit* or *Korein*, and *El Hofuf*.

The **Sultanate of Oman** includes the whole of the south-eastern extension of the peninsula. **Muscat** (60), or *Maskat*, the capital, is situated on the coast about 100 miles north of *Ras el Had*, the easternmost headland of the peninsula. Muscat is the largest town in Arabia, and is noted for its pearl fisheries, dates, and other products, in which a large trade is done with the surrounding

countries. The Sultanate of Oman, nominally independent, is practically under British protection, and the Imam or Sultan has long enjoyed "a close alliance with England, which, while adding to his prestige among his own people, guarantees him from any overt acts on the part of Turkey and Persia."

**Central Arabia** includes the whole of the interior plateau from *Hadramaut* on the south to the *Syrian Desert* on the north.

Central Africa is, and always has been, in the undisputed possession of the native Arab tribes, some of whom are nomads, living in tents, and moving with their horses and camels, sheep and goats, from one pasturage to another. There are, however, two permanent political organisations—the Wahabee State of Nejd (capital *Riad*), and the Sultanate of *Jebel Shammar*, whose capital, *Hail*, is a walled town, with 20,000 inhabitants, and an important station on the Persian pilgrim-route from Bagdad to Mecca.

#### QUESTIONS ON ARABIA.

1. How is Arabia bounded? What is its general shape?
2. By what is the Red Sea distinguished? Into what gulfs does its northern extremity divide?
3. What straits connect the Red Sea and the Persian Gulf with the ocean?
4. What are the general features of Arabia as to mountains and plains?
5. What kind of aspect has the Arabian Desert?
6. Where is the region called the Tehama?
7. Which part of the country was distinguished by the ancients as (a) Arabia Petraea, (b) Arabia Felix?
8. What kind of climate has Arabia?
9. Into what two classes are the people of Arabia divided?
10. By what name are the Arabs of the Desert called, and what is their mode of life?
11. What kind of commerce does Arabia possess?
12. Under what kind of government are the people of Arabia?
13. Which are the most important among the native rulers?
14. What provinces are subject to the Sultan of Turkey?
15. Name the present divisions of Arabia.
16. In which division of Arabia are the towns of Mecca and Medina? What town is the port of (a) Mecca, (b) Medina?
17. Where are Muscat, Sana, Mocha, Hodeida, Riad, and Hail?
18. By what great event is the Sinai region distinguished?
19. In what part of Arabia, and near the foot of what mountain, is the ruined city of Petra?
20. Which division of Arabia is distinguished as the Holy Land of the Mohammedans? And why?
21. Where is Aden? For what is it noteworthy?
22. What do you know of Hadramaut, Oman, El Hassa, El Hejaz, and Yemen?

#### PERSIA.

PERSIA is a country of Western Asia. It embraces the westerly and larger portion of an extensive plateau which stretches from the Hindu-Kush to the Mountains of Armenia, and from the borders of the Caspian Sea to those of the Persian Gulf.

**BOUNDARIES.**—Persia is bounded on the *north* by Trans-Caspia, the Caspian Sea, and Trans-Caucasia; on the *west*, by Asiatic Turkey; on the *south*, by the Persian Gulf and the Gulf of Oman; and, on the *east*, by Afghanistan and Baluchistan.

**EXTENT.**—According to the latest estimates, Persia contains an area of 628,000 square miles, or a little more than eleven times that of England and Wales.

The *greatest length*, from west to east, is 900 miles.

The *greatest breadth*, from north to south, is 800 miles.

**COASTS.**—The Caspian Sea on the north, the Persian Gulf and Gulf of Oman on the south, wash the shores of Persia. Its northern coast-line is about 300 miles long, and its southern, 1,200; total, 1,500, equivalent to 1 mile of coast to every 430 square miles of area.

1. The **Caspian Sea** is the largest strictly inland body of water in the world, being upwards of 600 miles long and from 100 to 200 miles broad, and covering an area of about 150,000 square miles. Although called a "sea," it has no communication with the ocean, and its surface is considerably below the general sea-level. This sea "has no tides; its waters are slightly salt; it is shallow, stormy, and of difficult navigation, and has but few indifferent ports." It is, politically, controlled by Russia, and is regularly navigated by the war vessels of that power.

2. The **Persian Gulf** communicates with the Indian Ocean by the Strait of Ormuz and the Gulf of Oman. Its navigation is somewhat difficult, especially along its western shores, owing to numerous reefs and islands. Still it is constantly navigated by vessels to and from Bombay and other Indian ports, and should the Euphrates-valley route to India be opened it will be much more frequented. The Strait of Ormuz derives its name from the small island of Ormuz, which lies near the coast of Persia.

**ISLANDS.**—The principal are Ormuz, Kishm, and Karak, in the Persian Gulf.

1. **Ormuz** is naturally a barren rock, but in the sixteenth and early part of the following century, when in the possession of the Portuguese, it was the chief emporium of the commerce of the East.<sup>2</sup>

2. **Kishm**, at the entrance of the Persian Gulf, an island of much larger size, lies to the west of Ormuz.

3. **Karak** is a fertile island near the head of the Persian Gulf.

**SURFACE.**—The interior of Persia is a plateau, elevated from three to four thousand feet above the sea, and bordered on three sides—the *north*, *west*, and *south*—by mountain chains. These mountains divide the elevated interior from the low country which lies along the Caspian Sea, the Persian Gulf, and the banks of the Tigris.

In the north of Persia, the *Elburz* range skirts the southern shores of the Caspian Sea, and attaining in the volcanic *Mount Demavend* an elevation of 18,470 feet. The *Elburz* range is continued into the lofty mountain groups in the north-western province, *Azerbaijan*,<sup>3</sup> of which the *Savalan Dagh* reaches a height of 14,000 feet. *Azerbaijan* is the most rugged portion of Persia; it forms a succession of tablelands, mountain peaks, and intervening valleys, and has a cooler temperature than other parts of the country. Near the western border lies the *Pushi-t-Kuh*, separating the basins of the *Kerkha* and the *Tigris*. There are also several ranges which extend parallel to, and at various distances from the eastern shores of the Persian Gulf, of which the as yet unexplored *Kuh Dinar*, in *Fars*,<sup>4</sup> is estimated to attain an elevation of about 18,000 feet. Further inland runs the parallel chain of the *Kuh Rud Mountains*,

1. It was called a "sea" by the ancients, who thought it communicated with the Northern Ocean, which was most probably the fact at a comparatively recent geological period, but no such connection has existed within historical times. The immense supply of water poured into the Caspian by the *Volga*, *Ural*, *Kura*, and other large rivers, seems to be at present equal to the amount evaporated, but at a former period this could not have been the case, or its level would not be below that of the ocean.

2. "High on a throne of royal state which  
far  
Ontonhome the wealth of Ormuz or of Ind."  
—*Paradise Lost*, b. ii.

3. *Azerbaijan* "country of fire"; formerly occupied by the fire-worshippers. Some of their descendants still exist in this province.

4. The province of *Fars* was anciently called *Persis*, hence *Persia*. The Persians call their country, *Iran*; the Arabs, *Fars* or *Farsistan*.

which culminate in the *Kuh Darbish*,<sup>1</sup> 11,700 feet, in the north, and *Kuh-i-Hazar*, 14,450 feet, in the south. The south coast is also skirted by several parallel but unimportant ranges, which are prolonged eastward into Baluchistan.

**DESERTS.**—Part of the interior plateau is a region called the *Great Salt Desert*. This is an arid tract, the soil of which is largely impregnated with particles of salt. South-east of the Great Desert is a smaller arid and marshy tract called the *Desert of Kerman*.

The total area of absolute desert is probably upwards of 150,000 square miles, or more than two and a half times the size of England and Wales.

**RIVERS.**—Persia, although its surface is broken by lofty mountain ranges, some of them crowned by glaciers, and although it rains and snows almost incessantly during the long winter, has but few large rivers, and only one of these—the **Karun River**—is navigable for sea-going vessels.

The *Aras* forms part of its north-western frontier; the *Shat el Arab* immediately above its entrance into the Persian Gulf (for the last 30 miles of its course), constitutes the line of division between Persia and Asiatic Turkey.

The other rivers of Persia are the *Kerkha* (380 miles long), the *Karun* (260 miles), and the *Safed Rud*<sup>2</sup> (800 miles). The two former join the *Shat el Arab*; the *Safed-rud* flows into the Caspian Sea. The smaller rivers of Persia, flowing towards the interior, are either absorbed in its arid plains or are received into saltwater lakes. The *Shat el Arab* is formed by the junction at Kurnah of the Euphrates and the Tigris.

**LAKES.**—The largest lake is *Urumiah* (1,735 square miles in extent), in the north-western province. It lies at an elevation of 4,000 feet above the sea, and its waters are intensely salt. *Lake Bakhtegan* or *Niris*, in the more southern interior, about 50 miles south-east of Shiraz, is also salt. West of the latter is the small *Lake Mahluja*, near Shiraz. The *Lake of Hamun* is on the eastern border.<sup>3</sup>

**CLIMATE.**—The climate of Persia exhibits great extremes. The interior plateaux are alternately parched by the fiercest heat of summer and swept by the cold winds of the opposite season. The lower plains, along the Caspian Sea and the Persian Gulf, are intensely hot.

The shores of the Persian Gulf, indeed, are among the hottest regions in the world, and the power of the sun's rays, reflected from the arid surface of rock and sand, is, during some months of each year, scarcely endurable. The mountain valleys, lying among the successive terraces by which the interior is reached from the coast, or from the plains of the Tigris, possess a delightful and equable climate, and are the most fertile portions of Persia.

**PRODUCTIONS.**—In these elevated valleys, watered by numerous running streams, such fruits as the *vine*, *fig*, *water-melon*, and *peach* abound; a rich vegetation clothes the sides of the hills, and a carpet of wildflowers (many of them such as constitute the choicest ornaments of our gardens, as the *narcissus*, *iris*, and *asphodel*) covers the ground. The interior plains are arid and comparatively unproductive, yielding only saline plants and grasses. The *olive* flourishes in Northern Persia. Among the minerals are the *turquoise*, found near Nishapur, and the fine *white marble* of Maragha.

1. About 35 miles north-west of Ispahan.

2. Or *Kisf Usen*, "golden stream."

3. The *Lake of Hamun* or *Selistan*, on the borders of Persia, is in reality a vast

freshwater swamp, 160 miles in length, into which the Helmand and other streams, which drain southern Afghanistan, discharge their waters.

**INHABITANTS.**—Persia has about 9 million inhabitants,<sup>1</sup> only one-fourth of whom are of pure Persian race, dwelling mostly in the towns. The rest are Turks, Kurds, Arabs, Baluchis, and various other wandering tribes.

A people called *Liyats*, whose habits are pastoral, form about a fourth of the population of Persia. They dwell principally in tents, finding summer pastures for their flocks upon the mountain sides, and returning to the lower plains during the season of winter. Camels, horses, and sheep constitute their wealth.

**Education.**—In no other country in Asia, except China, is education so generally diffused. The public schools and colleges are supported by the State, and give advanced instruction in Oriental literature.

**Religion.**—The people are mostly *Mohammedans*<sup>2</sup> in religion, but almost all are followers of the Shiite sect, on which account deep and mutual antipathy prevails between themselves and the Turks.

**INDUSTRIES.**—Although a large portion of the country is an absolute desert, yet most of the people are engaged in agricultural and pastoral pursuits, and there are important manufactures of *silks, carpets, shawls, and arms.*

Rice, barley, wheat, and various fruits are largely grown, and the olive, mulberry, vine, and cotton plants are extensively cultivated. *Carpets, shawls, embroidered silks, sabres, and firearms, cotton and woollen fabrics,* are also manufactured on a scale of some magnitude in the larger towns.

**Commerce.**—The commerce, carried on chiefly by caravans, is considerable, native produce and manufactures being exchanged for Indian and European goods. The trade by the Caspian is mainly in the hands of the Russians; that by the Persian Gulf and the Karun River, mainly with British India, is carried on by British merchants.

The imports from British India alone exceed 1½ million sterling. The direct trade with Great Britain only amounts to about half a million sterling. The internal trade centres at **TABRIZ**,<sup>3</sup> where the productions of Northern India and Central Asia are exchanged for British and continental manufactures, brought by caravan from the Black Sea ports and from Russia through Caucasia.

**Internal Communication.**—There are only two short railways, and only two passable carriage roads in the whole country. The telegraph and postal services are conducted partly by Europeans.

**Ports.**—The chief ports are **Bushir, Lingah, and Bandar Abbas**, on the Persian Gulf; **Mohammerah**, on the Karun River; and **Enzell, Maashad-i-Sar, and Bandar-i-Gez**, on the Caspian. Lingah is the principal port on the Persian Gulf. **TABRIZ**, in the north-western province, and **SHIRAZ**, 110 miles inland from Bushir (one of the Persian Gulf Ports), are important entrepôts.

**GOVERNMENT.**—The government of Persia is a despotic monarchy, the sovereign being entitled the *Shah*,<sup>4</sup> but his power is absolute only in so far as it is not contrary to the precepts of the Koran.

The Shah is assisted in the actual work of government by a number of Ministers, each of whom is the head of a particular department, as in Europe.

The average annual **Revenue**, about one-fourth of which is collected in kind (wheat, barley, rice, silk, &c.), is over 2 millions sterling, and the **Expenditure** about the same. There is no Public Debt.

1. According to an estimate made in 1831, the population numbers 7,983,000—44, inhabitants of cities, 1,963,800; wandering tribes, 1,969,800; inhabitants of village and country districts, 3,780,000.

2. The non-Mohammedan inhabitants do not exceed 85,000, and include about 43,000 Armenians, 23,000 Nestorian Christians, 20,000 Jews,

and about 9,000 Guebres or Parsis, who are the descendants of the ancient fire-worshippers.

3. The principal articles of import into Tabriz are cotton goods from Great Britain. The chief article exported is raw silk.

4. The Shah is officially styled "Shah-in-Shah," or King of Kings.

**Army.**—The regular army numbers about 80,000 men, but there are also about 70,000 men in the militia. Non-Mohammedans are exempt from military service.

**DIVISIONS.**—Persia is divided into a number of provinces, which are ruled by Governors-General appointed by, and directly responsible to, the Shah.

The Persian Provinces of **Astrabad**, **Mazanderan**, and **Ghilan**, lie along the Caspian Sea; the mountainous province of **Azerbaijan** occupies the entire north-western part of the country. **Kurdistan**, **Luristan**, and **Khuzistan**, in the west, intervene between the great central province of **Irak-Ajemi** and the Turkish frontier. **Khuzistan** and the southern provinces of **Farsistan** and **Kerman** border on the Persian Gulf. The province of **Khorassan**, in the north-east, marches with **Trans-Caspia** and **Afghanistan**; **Kuhistan** or **Persian Baluchistan**, in the south-east, borders on the Gulf of **Oman**.

**Towns.**—Only one town in Persia—**Teheran**—has over 200,000 inhabitants; another town, **Tabriz**, has 180,000 inhabitants. Three towns—**Ispahan**, **Mashad**, and **Barfrush** have a population of between 50,000 and 60,000, and eight other towns contain over 25,000 people.

**TEHRAN**, in the northern part of the country, 70 miles south of the Caspian, is the modern capital of Persia,<sup>1</sup> and now contains nearly a quarter of a million of inhabitants. **Ispahan** has declined from the splendour which it once possessed. **Hamadan** represents the *Achmetha* of the Bible (*Ezra vi.*, 2). These three towns are in the province of **Irak-Ajemi**.

The important commercial emporium of **Tabriz**, the chief city of **Azerbaijan**, lies not far distant from the shores of the salt lake of **Urumiah**. The province of **Azerbaijan** was the original seat of the ancient fire-worshippers of Persia, and it still exhibits numerous remains of the early fire-temples. The towns of **Resht**, **Barfrush**, and **Astrabad**, in the hot and low plains that border on the Caspian, command the chief commerce of that sea through their ports—**Enzeli**, the port of **Resht**, **Mashad-i-Sar**, the port of **Barfrush**, and **Bandar-i-Gez**, the port of **Astrabad**. The holy city of **Mashad**, in the north-east of **Khorassan** near the Russian and Afghan frontiers, is an important commercial centre and a great resort of Mohammedan pilgrims.

**Shiraz** is the chief city of **Farsistan**, the most fertile province of Persia, and the original seat of the Persian monarchy. **Shiraz** enjoys a delightful climate, and is the centre of considerable trade.<sup>2</sup> **Bushir**, on the Persian Gulf, and **Lingah** and **Bandar Abbas** or **Gombrun**, near the entrance of the Gulf, on its northern shore, are the chief seats of the foreign commerce of Persia.

**Shuster** and **Dizful**, the chief cities of **Khuzistan**, the south-western province of Persia, are of some commercial importance. **Shuster** stands on the **Karun** River, **Dizful** on a tributary of that stream.<sup>3</sup> The rising port of **Ahwaz** is on the **Karun** River about half-way between **Shuster** and **Mohammerah**. **Mohammerah**, at the junction of the **Karun** with the **Shat el Arab**, has been growing in commercial importance since the **Karun** River was opened to foreign navigation. The *Bombay Gazette* reports that what was only recently an inconsiderable town, has now become a thriving and populous port, at which the steamers of the **British India Company** and the **Persian Gulf Steam Navigation Company** make regular calls. Grain is now shipped from the port direct for Europe, and the **Euphrates** and **Tigris Steam Navigation Companies** run their steamers up the river to **Ahwaz**, in conjunction with the boats under the **Persian flag** running from that town to **Shuster**.

1. Teheran became the capital of Persia in 1794.

2. Shiraz was nearly destroyed by an earthquake in April, 1863. Not far distant from Shiraz are the remains of the ancient *Persepolis*, the capital of the Persian Monarchy in the time of Alexander the Great. These remains now bear the name of *Istakr*.

3. A few miles to the south-west of **Dizful** is

the mound of **Sus**, which marks the site of the ancient city of **Susa**, the **Shushan** of Scripture (*Gen. viii.*, 2). Huge mounds and other remains of the works of man in a former age, situated in the midst of tracts now desolate, are found in various parts of **Khuzistan**, and reveal the same picture of decay which characterises almost every part of **Western Asia**.



## QUESTIONS ON PERSIA.

1. How is Persia bounded?
2. Where is the island of Ormuz, and for what is it noteworthy?
3. What kind of formation does Persia exhibit as to its physical geography?
4. Name some of the mountains that are within Persia. Which of its provinces is the most mountainous?
5. Where is the Great Salt Desert?
6. What rivers belong to Persia?
7. What two large lakes does Persia include?
8. What kind of climate has Persia?
9. What fruits and flowers belong to the watered districts of Persia?
10. Among the inhabitants of Persia are a people called *Illyats*, what are their habits?
11. What are the chief industries? Name the chief ports.
12. Under what form of government is Persia? How is the sovereign styled?
13. Into how many provinces is Persia divided? What city is the capital?
14. In what provinces are the cities of Ispahan, Hamadan, Tabriz, Barfush, and Mashad?
15. By what is the province of Azerbaijan distinguished?
16. In what province are Shiraz and Bushir? For what is Bushir noteworthy?
17. Of what ancient city are the remains found not far distant from Shiraz? For what was this city distinguished?
18. What three places are within the province of Khuzistan? Which of them stands at the junction of the Karun river with the Euphrates?
19. Of what ancient city are the remains found near Diaraf?

## BALUCHISTAN.

BALUCHISTAN<sup>1</sup> is the general name given to the imperfectly explored territory bordering on the Indian Ocean, and lying between Afghanistan on the *north*, Persia on the *west*, and British India on the *east*.

**EXTENT.**—The *area* of Baluchistan is estimated at about 130,000 square miles. A straight line, from the port of Gwadar on the south to Quetta on the north, measures about 450 miles.

**COASTS.**—The coast-line is about 700 miles in length, and contains a few inlets which form indifferent harbours. The overland telegraph to India runs along the coast from Maksa to Karachi.

**NATURAL FEATURES.**—The chief physical characteristics of Baluchistan are (1) the low coast desert of Makran, backed by mountain ranges of moderate elevation, beyond which lies (2) the interior plateau, buttressed on the east by the Hala Mountains, but sloping on the north to (3) the sandy and stony plain which extends to the Helmand valley in the south of Afghanistan.

1. **Mountains.**—An irregular chain of mountains extends from east to west at a distance of between 50 and 100 miles from the coast, terminating in a triple chain which occupies Persian Baluchistan. To the east, the central plateau is bounded by the *Hala Mountains* and other ranges, which extend north from Cape Monze, near Karachi, to the Bolan Pass.

2. **Rivers.**—The only permanent river is the *Dasht*, in southern Baluchistan. The *Mashkid*, in the interior, loses itself in the desert. The north-eastern districts are watered by various streams which flow into the Indus.

3. **Climate.**—The climate exhibits extremes of heat and cold; the plains, and in summer even the highlands, being intensely hot; while in winter the

1. Baluchistan, so called from the *Baluchi* country, but the *Brakuts* are now the dominant tribe, who occupy the larger portion of the race.

cold is severe, snow lying on the ground for several months. In summer, the coast district of Makran is one of the hottest parts of the globe.

4. **Productions.**—Several of the most useful minerals and metals are known to exist, but are not much worked. Good coal is obtained at Khost, on the Sind-Pishin Railway. The vegetation resembles that of Persia, and in the low plains is of a decidedly tropical character. Leopards, wolves, hyenas, antelopes, and other wild animals are numerous, but the tiger and the Asiatic lion are found only along the eastern frontier.

**INHABITANTS.**—The total population of British and Independent Baluchistan numbers perhaps about half a million.

The people belong to two entirely different races—the *Baluchis* proper, who are of Aryan origin, in the western part of the country; and the *Brahuis* of Mongolian descent, in the eastern districts. The Baluchis proper speak a dialect closely allied to Persian; the language of the Brahuis is said to be of Sanskrit origin. Both the Baluchis and the Brahuis are Mohammedans; the former belong to the orthodox Sunnite sect, the latter to the sect of Omar.

Some *agriculture* is carried on in the immediate neighbourhood of the various towns, but the bulk of the people are nomads, depending entirely on their flocks and herds. Rice is extensively grown only in Gandava in the north-east. There are no manufactures of any importance. The commerce is in the hands of Hindus, and large numbers of horses, drugs, &c., are sent to India. The trade in Baluchistan Proper is carried on by camel-caravans, there being no roads or navigable rivers. In British Baluchistan, the Sind-Pishin Railway is largely used for the conveyance of merchandise as well as military stores.

**GOVERNMENT:** The Baluchi tribes are nominally subject to the Khan of Kalat, who rules under the direction of the Agent to the Governor-General of India. British Baluchistan, Quetta, and the Bolan Pass are under British administration.

According to the "Statesman's Year Book," Baluchistan includes (1) Independent Baluchistan, ruled by a number of chiefs under the suzerainty of the Khan of Kalat; (2) Quetta and the Bolan, administered on the Khan's behalf by British officers; (3) British Baluchistan, which includes the assigned districts of Pishin, Sibi, &c., under direct British rule; and (4) certain Afghan and Baluchi tribes on the Indian frontier. Quetta and the Bolan, with British Baluchistan, were placed under a *Chief Commissioner* in 1887.

**TOWNS.**—There are no towns of any importance, the chief towns of most of the provinces being mere villages, containing a few hundred inhabitants.

**KALAT**, the nominal capital of Baluchistan, is the summer residence of the Khan, who removes to Gandava, in the Indus valley, in the winter. Kalat lies 8,000 feet above the sea, and was stormed by the British in 1839 and 1841. Gwadar and Sonmiani are small ports on the coast of Baluchistan Proper. About 70 miles north of Kalat is the famous *Bolan Pass*, which is long (51 miles), narrow, and difficult, and although it passes "over a lofty range by a continuous succession of ravines and gorges," it formed, even before the construction of the railway, one of the main channels of communication between India and Afghanistan. In 1877, the town of Quetta, to the north-west of it, was occupied by the British, and is virtually the capital of **BRITISH BALUCHISTAN**, which practically includes the Pishin Valley as well as the adjoining assigned districts. Dadur and Sibi lie near the south-eastern entrance of the Bolan Pass. Dadur is one of the hottest places in the world. Sibi is a station on the Sind-Pishin Railway, which is already open beyond Quetta, and is now being pushed forward to Kandahar.

## AFGHANISTAN.

AFGHANISTAN is the name given to a mountainous country on the north-western frontier of India. Lying between the Russian dominions and India, this country is, politically, of great importance, hence the recent strenuous efforts of the British Government to make its power felt and respected by the turbulent and warlike inhabitants of this otherwise unimportant region.

**BOUNDARIES.**—Afghanistan is bounded on the *north* by Bokhara and the Trans-Caspian Territory, on the *east* by British India, on the *south* by British Baluchistan, and on the *west* by Persia.

The boundaries of Afghanistan, as laid down by the Anglo-Russian Delimitation Commission in 1886, extend north beyond the Hindu-Kush to the Amu-Daria or Oxus, and thence to Zulfikar, on the Har-i-Rud River, and nominally include the mountain lands between the Pamir Plateau and Kashmir. The southern boundary lies about the parallel of 30° N., and the western frontier runs from the Har-i-Rud River to Kuh Malik-i-Siah, a conspicuous peak south-east of the River Helmand. The area within these limits is estimated at 280,000 square miles, or nearly five times that of England and Wales.

**NATURAL FEATURES.**—Lord Lawrence pithily describes Afghanistan as a “country of mountain ranges, narrow defiles, and valleys limited in extent.” In fact, more than four-fifths of its surface consist of rugged mountains, with intervening valleys, some of which are well watered by numerous perennial streams.

The lofty range of the **Hindu-Kush** extends along the northern border from the Pamir Plateau, and is prolonged west as the **Koh-i-Baba** and the **Safed-Koh**<sup>1</sup> or *Paropamisian Mountains* (north of the Har-i-Rud River), which merge into the Khorassan highlands, and are thus linked with the Elburz Mountains to the south of the Caspian Sea. The **Sulaiman Mountains**, on the east, divide Afghanistan from the low plains that border the Indus; their highest summit, called *Takht-i-Sulaiman*,<sup>2</sup> is 12,000 feet in height. Besides these there are other lofty ranges, such as the **Siah Koh**, south of the Har-i-Rud River, and the **Safed-Koh**, 12,000 feet high, south of the Kabul River.

The mountain ranges of Afghanistan are traversed by numerous passes, of which the most important, from a military and commercial point of view, are the **Khyber Pass** (30 miles in length), leading from Peshawar towards Jellalabad, and thence by the **Khurd Kabul Pass** to Kabul; the **Kuram Pass**, up the valley of the Kuram River, and then by the **Peiwar Pass** (7,500 feet) and **Shutargardan Pass** (11,000 feet) to the road between Kabul and Ghazni; the **Gomul Pass**, from the Indus valley across the Sulaiman Mountains to Ghazni; and still further south, within the limits of British Baluchistan, the **Bolan Pass** (50 miles) leading to Quetta, and thence by the **Pishin Valley** and the **Kojak Pass** to Kandahar.

The chief rivers of Afghanistan are the **Kabul**, which, with its tributaries, drains the north-eastern part of the country, and, after a course of 300 miles, joins the Indus at Attock; the **Helmand**, with its tributaries, which drains Central Afghanistan, and, after a course of 700 miles, discharges its waters into the lake, or rather swamp, of Hamun in Seistan, into which the **Harud** and the **Farah** also empty themselves. The **Murghab** and the **Har-i-Rud** both flow north and finally disappear in the Turkoman Desert.

1. i.e., the white mountain.

2. i.e., the throne of Solomon.

The **Dehas** River, which flows north from Koh-i-Baba, is also lost in the sands near Balkh, but the **Kundus** River, which flows from the same mountains, joins the Amu Daria.

The only considerable lakes are the **Lake of Hamun** in Seistan, on the south-west frontier, which is in fact a mere swamp, being scarcely anywhere more than three feet deep, and the intensely salt **Lake Abistada**, about 60 miles south-west of Ghazni, and into which the Ghazni River flows.

**CLIMATE.**—The climate is distinguished by intense extremes of heat and cold; the summer heat in some of the deeper valleys being almost intolerable, while the winters, especially in the highlands, are intensely severe.

At Farah, in western Afghanistan, it is said that the mid-day heat renders eggs hard and makes balls of lead malleable. Yet the winter of Kabul is intensely severe, and the streams are frozen sufficiently hard to bear loaded camels. In spite of the disadvantages of an extreme climate, the country is on the whole healthy, and its inhabitants are perhaps the strongest and most active race in central Asia.

**PRODUCTIONS.**—The natural productions are like those of Persia, and the ground yields abundance of fruits and grain wherever water is sufficiently plentiful.

Various metals and minerals are also found, but not much worked. Among the domestic animals are the camel, the broad-tailed sheep, and an excellent breed of horses, great numbers of which are exported to India. Among the wild animals are the lion (rare), leopard (common), wolves, hyenas, bears, wild sheep, and antelopes.

**INHABITANTS.**—The population is estimated at about 5 millions, consisting of over 400 different tribes, some of which are almost independent of the Amir.

The *Ghilzais* and *Duranis* are the most powerful of the Afghan Tribes. Of the rest, the most important are the *Tajiks*, of Arab or Persian descent, in the west; and the *Kahkars* in the south-east. The *Cafars* or Kafirs, *Mohmuds*, *Afriidis*, *Wasiris*, and other tribes occupy the mountainous regions which enclose the Punjab on the north and west.

The Afghans proper evidently belong to the Aryan race, but the *Hazaras*, in the north-west, are of Mongolian origin. The Afghans generally are a bold and hardy race of mountaineers, extremely jealous of their liberty, many of the tribes owning no sovereignty but that of their own chiefs. They are warlike and hospitable, but treacherous and faithless.

The Afghans proper (who call themselves Beni Israel, or Sons of Israel, and claim descent from Saul) are Mohammedans, and belong to the orthodox or *Sunnite* sect, but the *Hazaras* and other tribes belong to the *Shiite* sect.

**INDUSTRIES.**—The Afghans are mostly devoted to pastoral pursuits. There is little *manufacturing* industry, but a considerable amount of trade passes through Afghanistan, owing to its intermediate position between India and the countries of Western Asia.

The only good roads in the country are those made by the British, from Peshawar to Kabul, and up the Bolan Pass to Kandahar, and goods are mostly conveyed by camels and other beasts of burden.

**GOVERNMENT.**—Afghanistan has almost always been in an unsettled state, and the various tribes are more or less independent. The **Amir of Kabul**, the chief of the powerful Durani tribe, is, however, acknowledged as sovereign, and is recognised by the British Government as ruler of Afghanistan.

Afghanistan was first invaded by British troops in 1838, but three years later the English army was destroyed and the country abandoned. It was again invaded in 1878, and Kabul and Kandahar were occupied for a time. As a result of this war, British India secured an extension of territory to the north-west, and a "scientific frontier" from the head of the Khyber Pass, by the Shutargardan Pass at the Afghan end of the Kurum valley, to the Koja Amran Pass north of Quetta, thus giving to India the command of the "north-west gates," by which alone any hostile advance can be made. The Amir also consented to receive an English Resident, but a fanatical outbreak at Kabul, resulting in the murder of Sir Louis Cavagnari and his escort, led to another Afghan war, at the end of which the British troops were withdrawn from the country.

**DIVISIONS.**—The principal divisions of Afghanistan Proper are *Kabul* in the east, *Kandahar* in the south, *Herat* in the north-west, *Seistan* in the south-west, and *Daman* in the south-east.

Other large territories to the north-east are also included within Afghanistan, namely, **Afghan Turkestan**, between the Hindu-Kush Mountains and the river Amu, and **Kafiristan**, between the Hindu-Kush and the Indian frontier.

**TOWNS.**—The chief towns are **Kabul** (the capital), **Kandahar**, and **Herat**. These three towns form, as it were, the three angles of a triangle—Herat being the apex, and Kabul-Kandahar the base—on the occupation of which depends the command of the country.

**KABUL**,<sup>1</sup> in the north-east, at an elevation of 6,400 feet, is defended by the Bala Hissar. Being on the trade-route from Central Asia to the Punjab, it has a large transit trade. **Kandahar**, the "Key of India," is the largest town in Southern Afghanistan, and is a place of some commercial importance, being on the main route between India and Persia. In the north-west, almost at the point where the Afghan, Russian, and Persian boundaries converge, is **Herat**, the "Gate of India," and the focus of several commercial routes between India, Persia, and Russian Central Asia. **Ghazni** was, in the 10th century, the capital of an extensive and powerful empire, but is now a mere fortress, built on a rock 300 feet above the adjoining plain. It was stormed and taken by the British in 1839 and 1842, and was again occupied during the last Afghan war. **Jellalabad** lies on the right bank of the Kabul River, about midway between Peshawar

1. Here, in 1842, the British Envoys, Sir W. MacNaghten and Sir Alexander Burnes, and in September, 1879, Sir L. Cavagnari, were treacherously murdered.

war and Kabul. Between Jellalabad and Kabul are the passes in which the British forces were annihilated during the winter of 1841-42.<sup>1</sup>

**AFGHAN TURKESTAN** includes a number of small States, lying between the Hindu-Kush and the Oxus. These are *Wakhan*, *Badakshan*, *Kundus*, *Khulm*, and *Balkh*, with four other States.

**Wakhan** is the most easterly of these States, and includes the valley of the Panja or Upper Oxus. The chief town is *Kila Panja*.

**Badakshan**, which includes the fertile valley of the Kokcha, one of the upper affluents of the Oxus, is mountainous, but the valleys and lower grounds are cultivated to a considerable extent. The principal towns are *Faizabad* and *Zebak*. West of Badakshan lies

**Kundus**, which is bounded on the north by the River Oxus, and on the south by the Hindu-Kush Mountains. The valley of the Kunduz River (an affluent of the Oxus) is on the whole fertile, but unhealthy. The capital is the mud village of *Kundus*. On the route between Kunduz and Faizabad is the former capital, *Talikhán*.

**Khulm** lies between Kunduz and Balkh. Its chief river and capital are also called *Khulm*. The higher grounds are rocky and arid, but the river valley is exceedingly fertile.

**Balkh**, the ancient *Bactria*, embraces the fertile and populous basin of the Dehas or Balkh River, the waters of which are drawn off into eighteen canals, and are entirely exhausted in irrigation. The capital, *Balkh*, now a mere village, is noted as being the birthplace of Zoroaster, and was in ancient times a magnificent city.

Besides the above, four other small khanates—*Shiberghan*, *Andkhui*, *Maimana*, and *Siripul*—formerly independent, are included within the limits of Afghanistan. They lie between the province of Herat and Russian Turkestan. The total population, consisting mainly of Usbege, is probably under 250,000.

#### QUESTIONS ON BALUCHISTAN AND AFGHANISTAN.

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| <ol style="list-style-type: none"> <li>1. How is Baluchistan bounded, and what is its area?</li> <li>2. Name the chief natural features of Baluchistan.</li> <li>3. What mountain ranges lie between Baluchistan and British India?</li> <li>4. Describe briefly the climate and productions of Baluchistan.</li> <li>5. To what races do the people of Baluchistan belong? What is stated regarding the government of the country?</li> <li>6. What form of religion do they profess?</li> <li>7. Name the chief divisions of Baluchistan.</li> <li>8. What town is the nominal capital? Where are the following towns:—Quetta, Gundava, Gwadar, Somniani, Dadur, Sibi?</li> <li>9. Where is the Bolan Pass? What town is held by the British near its northern entrance?</li> <li>10. Where is Afghanistan, and what are its boundaries?</li> </ol> | <ol style="list-style-type: none"> <li>11. Name the principal mountain ranges and passes.</li> <li>12. What rivers belong to Afghanistan? Point them out on the map and trace their courses.</li> <li>13. Name the two chief lakes.</li> <li>14. What kind of climate has Afghanistan?</li> <li>15. Enumerate the principal natural productions.</li> <li>16. The inhabitants of Afghanistan belong to many different tribes, which of these are the most important?</li> <li>17. What form of religion do the Afghans profess?</li> <li>18. How are they generally employed?</li> <li>19. What chief is acknowledged as ruler of Afghanistan?</li> <li>20. What are the principal divisions?</li> <li>21. State what you know of Kabul, Kandahar, Herat, Ghazni, and Jellalabad?</li> <li>22. Describe briefly the States comprised within Afghan Turkestan.</li> </ol> |
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<sup>1</sup> In this disastrous retreat only one man reached Jellalabad, which was held by Sir Robert Sale with a small force, until relieved by

General Pollock, who ordered the fortifications to be destroyed.

## THE INDIAN EMPIRE.

The **INDIAN EMPIRE** comprises the central and by far the most important of the three great peninsulas of Southern Asia, together with large territories on the eastern side of the Bay of Bengal.

The *total area* of these vast dominions, most of which are under direct British rule, and the rest subject to British control, is upwards of 1,800,000 square miles, or more than 30 times as large as England and Wales, while the *population*, according to the census of 1891, is 286,000,000 (or more than 9 times the population of England and Wales).

### INDIA.

**INDIA PROPER** or **HINDUSTAN** extends from the Himalaya Mountains to Cape Comorin, and from the Sulaiman Mountains to the head of the Bay of Bengal.

**BOUNDARIES.**—The Himalaya Mountains bound India on the *north*; Burma and the Bay of Bengal on the *east*; Afghanistan, Baluchistan, and the Indian Ocean on the *west*. To the *south*, it terminates in Cape Comorin, a conspicuous headland which fronts the waters of the Indian Ocean.

In shape, India Proper is triangular, the vast range of the Himalayas forming the base, the Malabar and Coromandel coasts the sides, and Cape Comorin the apex. It is worthy of notice that the boundaries of India are, for the most part, formed by strongly-marked natural features. Thus the Hala and the Sulaiman Mountains on the north-west, the Himalayas on the north, and the Naga, Khasia, and Tipperah Hills on the east, form an almost continuous "wall," enclosing the continental portion of India. The strictly peninsular portion south of the Tropic of Cancer is bounded on both sides by the sea. The *political* importance of a naturally strong frontier, instead of merely artificial boundaries, is evidently very great, and especially when an immense territory like India is held by a distant foreign power.

**EXTENT.**—India Proper embraces an area of over 1½ millions square miles, a magnitude 14 times greater than that of the British Islands, and which exceeds by more than 20 times the area of England and Wales.

If we include **Kashmir**, with an area estimated at 80,900 square miles, **Manipur** at 8,000, **Upper Burma** at 90,000, and the **British Shan States** at 90,000 square miles, the total area of British India may be taken at 1,650,000 square miles, or nearly one-half the area of Europe.

**COASTS.**—The coasts of India are, on the whole, regular and unbroken, deficient in good harbours, and so exposed and surf-beaten as to be in many parts extremely dangerous to approach. The length of the coast-line is about 3,600 miles, equivalent to one mile of coast to every 416 square miles of area. Various portions of the Indian coasts are distinguished by special names, such as—

1. The **Orissa Coast**, between the mouths of the Hugli and the Godavari.
2. The **Golconda Coast**, between the Godavari and the Kistna.
3. The **Coromandel Coast**, between the Kistna and Cape Comorin.
4. The **Malabar Coast**, between Cape Comorin and Goa.

The principal features along the coast of India are :—

1. **Capes.**—Cape Monze (near Karachi) and Diu Head (south of Guzerat) on the west, Cape Comorin on the south, and Calimere Point on the west.

2. **Inlets.**—The Gulf of Cutch or Kach, leading into the *Runn of Cutch* (a vast salt marsh, flooded only during the rainy season), and the Gulf of Cambay, on the west; and, on the south, the Gulf of Manaar (divided from Falk Strait by the remarkable ridge of sandstone known as Adam's Bridge), between Ceylon and the mainland.

**ISLANDS.**—The principal islands are Ceylon, the Laccadives and Maldives, the Andaman and Nicobar Islands, and the Bombay group.

1. The large island of **Ceylon**, lying to the south of India, is a British Crown Colony, entirely independent of the Indian Government. Ceylon is 25,364 square miles in area, or about three-fourths the size of Ireland. The interior of the island is a high mountain region, the loftiest summits of which exceed 7,000 feet; a broad belt of lowland extends around the coast. Numerous rivers water its plains and valleys, and it possesses a fine climate, with an abundance of rich natural produce. Its extensive forests (through which numerous herds of elephants yet roam) are composed of trees which yield timber of the highest value, as the teak, ebony, rosewood, satin-wood, and others. But the most characteristic products of the island are tea, coffee, rice, cinchona, cinnamon, and tobacco.<sup>1</sup>

Ceylon has upwards of 3 millions of inhabitants. These are called Singhalese; they differ in some respects from the people of the Indian mainland, and profess Buddhism. The political and commercial capital of the colony is *Colombo* (120), on the western coast. *Trincomali*, a flourishing seaport with an excellent harbour, is on the north-east side of the island. *Kandi*, formerly the native capital, is in the interior.

2. The groups of the **Laccadive and Maldive Islands** lie in the Indian Ocean, to the south-west of India. The former are surrounded by coral reefs, and the latter are wholly composed of coral—scarcely rising above the level of the surrounding waters. The cocoa-nut is the chief product in either group.

3. In the **Andaman Islands**, in the eastern part of the Bay of Bengal, the chief settlement is Port Blair, on Great Andaman Island.

4. The **Nicobar Islands**, to the south-east of the Andaman Islands, consist of two large islands, Great and Little Nicobar, and several smaller ones.

5. Of the **Bombay Group** the principal islands are Bombay, Salsette, Colaba, and Elephanta, the latter being especially famous for the temples and idols excavated in the solid rock. The island of Bombay, near the southern extremity of which lies the town of Bombay, is connected with Salsette by an artificial causeway.

**NATURAL FEATURES.**—The more noticeable of the great natural features of India are on the north, the vast range of the Himalayas, the loftiest mountains in the world, the exterior ranges of which rise abruptly from the Great Plain of Hindustan, watered by the Indus and Ganges. The peninsular portion of India to the south of this plain forms a series of tablelands, crossed transversely by several considerable chains, and buttressed on the east and west by the Ghats, between which and the sea is a narrow plain. The highlands of central and southern India are everywhere seamed by irregular valleys drained by numerous rivers.

1. The trade of Ceylon is carried on mainly with the United Kingdom and India. Annual value over 114 million rupees—Imports, 63 million Rs.; Exports, 51 million Rs. (value of rupee in 1891, 16s pence). The trade with the

United Kingdom—annual value over 4½ millions sterling—consists chiefly in the export of tea, coffee, and cinchona, and in the import of cotton goods, coal, and machinery.



India thus embraces two great divisions: the north, which is an extensive lowland plain; and the centre and south, which form a plateau, bordered by mountains of moderate altitude. The plain of northern India is distinguished as *Hindustan*; the centre and south constitute a region known as the *Deccan*.

1. **Mountains.**—The chief mountain chains of India are the Himalayas, the Western and Eastern Ghats, the Aravalli Hills, the Vindhya and the Satpura Mountains, and the Nilgiri Hills. The Himalayas are by far the most important, and they include the highest elevations on the surface of the globe.

(1.) The **Himalaya Mountains** extend for 1,500 miles in a well-defined line along the northern border of India, dividing that country from the tableland of Tibet. Like other great mountain ranges, the Himalayas consist of several parallel ranges. The outer range, bordering on the great plain of India, rises abruptly to a height of 3,000 or 4,000 feet. The inner chains gradually increase in elevation and culminate in the main ridge containing the lofty summits of *Gaurisankar* or *Mount Everest*, 29,002 feet above the sea (the highest mountain in the world); *Dhaulagiri*, 28,078 feet; and *Kanchinjanga*, 28,177 feet. All the higher parts of the Himalayas are covered with perpetual snow. The *passes* over the Himalayas are lofty and extremely difficult. The best known are the *Karakoram Pass* (18,550 feet), and the *Mustagh*, leading into Eastern Turkestan, and the *Seylub Pass* into Tibet. All the loftier valleys are filled with vast glaciers, from which the great rivers of India derive a never-failing supply.

(2.) The **Western Ghats** extend along the Malabar Coast of India, lying close to the shores of the Indian Ocean. Their highest summits do not exceed 8,000 feet. A succession of detached portions of high ground which extend along the eastern side of the peninsula are called the **Eastern Ghats**. These have an average height of 1,500 feet.

(3.) The **Aravalli Hills** lie along the western border of the tableland of Malwa, and separate the basins of the Ganges and the lower Indus. The average elevation is inconsiderable, *Mount Abu* rises to a height of 5,000 feet above the sea. Further south is *Girna*, 3,000 feet high.

(4.) The **Vindhya Mountains** lie in the direction of east and west, along the north side of the peninsular portion of India. Their height is moderate, seldom exceeding 3,000 feet.

(5.) The **Satpura Mountains** run almost parallel to the Vindhya range for 200 miles, between the Nerbada and the Tapti. These mountains are prolonged eastward, almost to the banks of the Ganges, as the *Rajmahal Hills*, one peak of which, *Mount Parasnath*, reaches a height of 4,530 feet. Still further east, beyond the Brahmaputra, are the minor *Garrow* and *Khasia Hills*. Between these and the coast are the *Tipperah Hills*.

(6.) The **Nilgiri Hills** form a connecting link between the Eastern and the Western Ghats, and rise abruptly from the remarkable valley or "gap" of Coimbatore, which extends right across the peninsula. The highest point is *Mount Dodabetta*, 8,760 feet. To the south of the "gap" are

(7.) The **Algherries** or **Cardamum Mountains**, remarkable as containing the highest mountain in India south of the Himalayas, *Anamalli*, 8,837 feet.

2. **Tablelands.**—The two great tablelands of India are:—

(1.) The *Northern Tableland*, or Plateau of Malwa and Bundelkhand, in central India, and bounded on the north-west by the Aravalli range, and on the south by the Vindhya Mountains.

(2.) The *Southern Tableland*, or the *Deccan*, occupying nearly the whole of peninsular India, and bounded on the east and west by the Eastern and Western

Ghats, and on the north by the Vindhya and the Satpura Mountains and the valleys of the Narbada and the Tapti.

**3. Plains.**—The *Great Plain of Northern India* extends across the country between the northern tableland and the Himalayas. Its south-eastern slope, towards the Bay of Bengal, is drained by the Ganges, and its south-western slope by the Indus; hence its division into the “Plain of the Ganges” and the “Plain of the Indus.”

Within the latter is comprehended the fertile Punjab, the Great Indian Desert (or *Thar*), and the Runn of Cutch. In the north of the plain of the Ganges is the malarious swamp called the “Tarai;” with this exception, the plain is fertile and productive, supporting an unusually dense population. The *East and West Coast Plains* lie between the Ghats and the sea; the eastern plain is much wider and more fertile than the western, the extreme breadth of which nowhere exceeds 50 miles.

**4. Rivers.**—The rivers of India are naturally divisible into two great sections, viz., those draining the south-eastern slope into the Bay of Bengal, and those draining the south-western counter-slope into the Arabian Sea.

The principal rivers are:—(a) The Brahmaputra, Ganges, Mahanadi, Godaveri, Kistna, and Cauveri, *draining the south-eastern slope into the Bay of Bengal.* (b) The Indus, Narbada, and Tapti, *draining the south-western counter-slope into the Arabian Sea.*

(1.) The **Brahmaputra** (1,680 miles) rises in the vast glaciers on the northern slopes of the Himalayas, and flows east for several hundred miles, but turns south through Assam, and in its lower course divides into several channels, some of which unite with the eastern outlet of the Ganges.

(2.) The **Ganges**<sup>1</sup> rises on the south slope of the Himalayas, and, after a south-east course of 1,500 miles through the great plain, finally enters the Bay of Bengal by numerous channels, of which the Hugli is the most important. The Ganges is navigable for the largest vessels to Chandernagore, while light steamers can go up to Cawnpore, and thence by canal to Hardwar, more than 1,800 miles above its mouth. The chief tributaries are the *Junna* and *Sone* on the right, and the *Goomti*, *Gogra*, *Gundak*, and *Coosi* on the left, bank.

(3.) The **Mahanadi**, though notorious for its destructive floods, is yet navigable by boats for 400 miles. Its length is 520 miles, and the area of its basin is 70,000 square miles. Its extensive delta formed the old province of Cuttack.

(4.) The **Godaveri** rises in the Western Ghats, not far from the Gulf of Cambay, and flows south-east for 900 miles, entering the Bay of Bengal by two large channels. The navigation of this river is impeded by several rapids.

(5.) The **Kistna** also rises on the eastern slopes of the Western Ghats, and has a rapid and unnavigable course of 800 miles.

(6.) The **Cauveri** rises in the Western Ghats and enters the coast-plain by two magnificent falls, of which the upper is 370, and the lower 460, feet high.

1. “The work done by the Ganges, as the water-carrier and fertiliser of the densely-populated provinces of Northern India, from its source in the Himalayas to its mouth in the Bay of Bengal, entitles it to rank as the foremost river on the surface of the globe, and fully excuses the affectionate reverence and the divine honours paid to it by the Hindus. A great river like the Ganges has three distinct stages in its life from its source to the sea. In the first stage it dashes down the mountain sides, cutting out for itself deep gullies in the solid rock and ploughing up gleans and ravines upon its way. The second stage is where it emerges from the mountains on to the plain, running then more

peaceably along the valleys and seeking out for itself the lowest level. Here it receives the mud and drainage of the country round, absorbs tributaries, and rolls forward with an ever-increasing volume of water and silt. Finding its speed checked by the equal level of the plains and its bed raised by its own silt, it splits out into channels like a jet of water suddenly obstructed by the finger or a jar of liquid suddenly dashed upon the floor. Each of the channels thus formed throws out in turn its own channels to right and left. In the case of the Ganges, the country which these many offshoots enclose forms the delta of Bengal.”—*The Times*.

It enters the sea by two branches, which enclose a delta 80 miles long. The south-eastern branch, the *Colerun*, is extensively used for irrigation.

(7.) Of the minor streams that flow into the Bay of Bengal the principal are the *Bramini*, between the Mahanadi and the Ganges; the *North Pennar* and *South Pennar*, and the *Palar*, all of which rise in the hills of Mysore.

(8.) The *Indus* (1,800 miles) rises in the tableland of Tibet, and flows first north-west through Kashmir, and then south through the Punjab and Sind, entering the Arabian Sea by numerous mouths. About 470 miles above the sea it is joined by a stream called the *Panj-nad*, which brings the collected waters of five tributary rivers. The district through which these rivers flow is called the Punjab—that is, the country of the five rivers. The names of these are the *Jhelum*, *Chenab*, *Ravi*, *Bias*, and *Sutlej*. The Indus is navigable from Karachi (near its mouths) to its confluence with the *Kabul* river at Attock, 900 miles from the sea.

(9.) The *Narbada* rises in the highlands of Central India and flows west between the Vindhya and the Satpura Mountains into the Gulf of Cambay. It is 800 miles long, and is throughout rapid and unnavigable.

(10.) The *Tapti* rises in the Satpura Mountains and flows west through the valley formed by them and the northern edge of the Deccan. Both the *Narbada* and the *Tapti* are subject to sudden and destructive floods.

(11.) Of the smaller streams draining the south-west slope, the chief are the *Luni*, which rises in the Aravalli Hills and flows into the Rann of Cutch; and the *Mahi*, rising in the tableland of Malwa and entering the Gulf of Cambay.

5. **Lakes.**—Small and unimportant. Among them are the *Chilka* and *Palicat Lagoons* on the east coast; the *Lagoons* of the Malabar Coast; *Lake Kolar*, formed by the expansion of the Kistna and the Godaveri; and *Lake Wular*, similarly formed by the Jhelum.

**CLIMATE.**—The climate of India is hot, except only in the higher mountain regions, where a cool temperature results from elevation above the sea. These elevated tracts are, accordingly, much resorted to during the hot season.

The lower slopes of the Himalayas, in the north of India, the Ghats, off the western coasts of the peninsula, and the region of the Nilgiri Hills, in the south, are well known for their cool atmosphere and their refreshing breezes. In like manner, the mountain districts in the interior of Ceylon, though only a few degrees distant from the equator, enjoy a cool and invigorating temperature. The seasonal changes in India are those from rain to drought, and the reverse, and are intimately connected with the *monsoons* or periodical winds which prevail throughout southern Asia. The monsoons bring rain or drought alternately to the plains of India, according as they have passed over the ocean or over inland regions. On the Malabar Coast, the south-west monsoon (which blows from April to September) is accompanied by rain, which falls in torrents along the whole seaward face of the Ghats. On the Coromandel Coast, on the other hand, the north-east monsoon (October to March) is accompanied by rain. But the eastern side of India is generally hotter and more arid than the western coasts of the peninsula. These changes of the monsoons regulate, in great measure, the habits of life of the Indian population.

**PRODUCTIONS.**—The natural productions are rich and varied.

(1.) The *gold* and *gems* for which India is traditionally celebrated are of less real value than the *coal* and *iron* which are found extensively diffused through large portions of the country. Good coal is worked to the north-westward of Calcutta, and there are iron-works in Malabar and other localities. *Tin*, *copper*, and other metals also occur. There are rich deposits of *rock-salt* in the Punjab.

(2.) The *vegetable products* are of high value. India supplies all, or nearly all, the fruits and other plants mentioned as belonging to southern Asia in general. Vast forests of teak and other trees clothe the seaward face of the Ghats, and forests extend from the plains of northern India far up the declivities of the Himalayas. The least productive part of India is the region known as the Great Indian Desert, and the neighbouring tract called the Runn of Cutch. The latter is alternately an arid and sandy waste, or a vast swamp, with the seasons of drought and moisture.

(3.) Of the animals, the principal are the domestic and wild *elephant*, the maneless *lion* (in Guzerat and Rajputana), the *tiger*, *leopard*, *wolf*, *hyena*, *rhinoceros*, *buffalo*, *wild ass*, *deer* and other game, and *monkeys*. Besides the ordinary domestic animals, there are the *camel*, the *humped ox*, the *yak*, and the Kashmir *goat*.

**INHABITANTS.**—According to the Census of 1891, the population of India amounts to 286,000,000—an average, for the whole country, of more than 200 persons to the square mile. Upwards of 220 millions are under direct British administration; and the great bulk of the remainder, though with various native sovereignties, are under the controlling power of Great Britain.<sup>1</sup>

**Race.**—The great mass of the people of India (six-sevenths of the whole) belong to the *Hindu race*, the various families of which, however, exhibit many points of difference. The inhabitants of the provinces that border on the lower Ganges are of small stature and slender frame; those of the more inland provinces are a people of larger proportions and greater strength. There are, besides, settled in various parts of India, and intermingled with the Hindu population, descendants of *Arabs*, *Armenians*, *Afghans*, *Turks*, and other races, together with *Parsis*,<sup>2</sup> *Jews*, and people of various European nations (principally British).

**Religion and Education.**—The Hindus are uniformly followers of the *Brahmanical* religion, worshipping the Hindu trinity, of which Brahma, Vishnu, and Siva are the members. The division into castes is one of their most characteristic social usages. Of that portion of the population of India which is not included among the worshippers of Brahma, by far the greater number are *Mohammedans*. The total number of Mohammedans is upwards of 57,000,000. There are also 7,000,000 *Buddhists*, 2,000,000 *Sikhs*, 1,500,000 *Jains*, 90,000 *Parsis*, and 17,000 *Jews*. *Christianity* is making rapid progress, and the native Christians now number over 2½ millions. Education is also making some progress, and there are many thousands of *Primary Schools*, a large number of *Secondary Schools* and *Colleges*, and five *Universities*.

**INDUSTRIES.**—Agriculture has always been, and still is, the chief industry in India; but there are also important native manufactures of fine textile fabrics and metal wares, and the internal and foreign trade is very extensive.

*Rice*, *millet*, and *pulse* are the *staple foods* of the great mass of the population, who live mainly upon a vegetable diet—not less from its superior economy and from the natural influences of the climate, than from religious prejudices in its favour.<sup>3</sup> The culture of the *poppy*—for the purpose of extracting *opium*

1. But vast as is its population, India is yet, relatively, less populous than several countries of Europe. The average density, according to the last Census (1891), is about 100 persons per square mile less than is the case in the United Kingdom. But some parts of the country are much more populous than others. The provinces on the Lower Ganges are the most densely populated; those in the north-west of India, the least so. In Bengal, there are now on an average no less than 398 persons to the square mile, or

745 to every square mile of the estimated cultivable area.

2. The Parsis, who are confined to the city of Bombay and a few places in the immediate vicinity, are descended from the ancient fire-worshippers of Persia.

3. It is a mistake to suppose, as is commonly the case, that the Hindus abstain altogether from animal food. The ox is sacred, and its flesh is never touched, and the flesh of swine is regarded with horror both by the Brahmin and the Mo-

—is very extensively pursued in some of the provinces within the valley of the Ganges, and also on the plateau of Malwa, to the northward of the Vindhya Mountains. *Indigo*, *cotton*, the *sugar-cane*, the *coffee-plant*, and the *mulberry*, are objects of culture in various parts of India. The *tea-plant* is extensively cultivated in Assam and Bengal, and more tea is now imported into Great Britain from India than from China. *Wheat* is now largely grown for export.

*Fine silks* and *muslins*, with *shawls* and other articles of ornamental attire, and *cotton fabrics*, constitute the chief produce of Indian manufacturing skill.

**Commerce.**—The *import* of manufactured goods, principally from Great Britain, and the *export* of raw produce and native manufactures, are the distinguishing features of the extensive foreign commerce of India.

The annual value of the Foreign Sea-borne Trade of British India is about 190 millions sterling; the *imports* amounting to about 85 millions, and the *exports* to 105 millions sterling.

The *trade of India* with the United Kingdom is considerably more than *one-half of its total trade*, and the Anglo-Indian fleet of London is second only to the Atlantic fleet of Liverpool.

**Ports.**—The *seven great ports of India*, in the order of their importance, are *Bombay* and *Calcutta*, *Rangun* and *Madras*, *Karachi*, *Tuticorin*, and *Chittagong*. Of these, *Bombay* and *Calcutta* are by far the most important ports in India, and together do nearly *four-fifths* of the entire maritime trade of the country.

The *means of internal communication* in India were formerly very defective, but there is now a great network of main and district roads throughout British India, and *17,000 miles of railways* are already open for traffic.

**GOVERNMENT.**—Nearly the whole of this immense country is directly or indirectly under **British government**. Three-fifths of the vast region lying between the Himalaya Mountains and Cape Comorin are included within the limits of **British India**, and are subject to the direct rule of authorities appointed by the British Crown.

The remainder is divided between various **Native States**, of which there are a vast number (many hundreds in all), attached to Britain by various ties, but all more or less dependent upon British power. These are sometimes called "Tributary" or "Feudatory" States. Their rulers assume various titles. The Sovereign of Haidarabad, the largest of the Native States, is called the *Nizam*; the ruler of the larger portion of Guzerat is known as the *Gujowar* or *Gackwar*. More frequently, however, the title of Maharajah or Rajah is borne by the Native princes.

The Government of the Indian Empire is controlled by the **Secretary of State for India**,<sup>1</sup> aided by a consultative **Council** of not less than 10 members. The **SUPREME GOVERNMENT IN INDIA** is exercised by a **Governor-General** or **Viceroy**, who represents and is appointed by the Crown, assisted by an **Executive Council** of 6 members, including the **Commander-in-Chief** of the Imperial Forces in India. Other members are added to form a **Legislative Council** for making laws and regulations for the Indian Empire generally, and for those Provinces which have no **Local Councils**.

hammedan. But mutton is eaten without hesitation, and fish is largely consumed, whenever it is cheaply obtainable. In all hot countries, however, vegetable diet is preferred by the mass of the people. The Greenlanders, who consume twelve pounds' weight of meat in a day, and the Hindus, whose chief nutriment is derived from rice, act in each case upon the instinctive impulses that are always associated with climate and other conditions of physical geography.

1. Prior to the year 1863, all the provinces of British India were under the rule of the East

India Company—a body of merchants originally incorporated in the reign of Queen Elizabeth—subject only to a limited control on the part of the Crown. But in that year the political functions of the Company were terminated by Parliament, and the whole of their vast dominions brought under the direct authority of the British Crown. The Queen of England formally assumed the title of Empress of India (Kaiser-i-Hind), by an Act proclaimed at Delhi before the Princes of India, on January 1, 1877

The **Annual Revenue** amounts to about 85 millions, and the **Expenditure** to about 84½ millions sterling. The total **Debt** is over 200 millions sterling. The **European Army** consists of about 73,000 men, and the **Native Army** of about 150,000 men.

**DIVISIONS.**—India is politically divided into (1) British Possessions, (2) Native States, (3) Foreign Possessions.

The territories under direct British administration were formerly divided into the *three* "Presidencies" of Bengal, Madras, and Bombay, and the term "Presidency" is still applied to these three Provinces or Governments. But British India is now divided, not into *three* "Presidencies," but into *eight* "Presidencies and Provinces,"<sup>1</sup> each with its own separate civil Government, subject to the Supreme Government at Calcutta, which derives its authority from, and acts under the orders of, the Secretary of State for India, who, as a Cabinet Minister, is directly responsible to the British Parliament.

The Native States of India are all governed by Native Princes with the help and under the advice of a British Resident or Political Agent, stationed at each of their Courts by the Viceroy.

**The provinces of British India** are BENGAL, the NORTH-WEST PROVINCES AND OUDH, the PUNJAB, the CENTRAL PROVINCES, BURMA, ASSAM, MADRAS, and BOMBAY.

Bengal, the North-West Provinces and Oudh, and the Punjab, are under *Lieutenant-Governors*; Madras and Bombay, under *Governors*; and the Central Provinces, Assam, and Burma, under *Chief Commissioners*. A large number of the Native or *Feudatory States* are attached to Bengal, the North-West Provinces, the Punjab, the Central Provinces, Madras, and Bombay.

*Ajmir, Berar, and Coorg*, with the *Andaman Islands*, are under the direct administration of the Governor-General. Berar is only provisionally under British administration. *Mysore* was restored to the Native Government in 1881.

**BENGAL**, the most populous and productive of all the British Provinces in India, has an *area* of 150,000 square miles, or three times that of England, and a *population* of 71 millions (more than twice that of the United Kingdom), or over 760 persons to the square mile of the estimated cultivable area.<sup>2</sup>

Bengal includes, besides the lower portions of the Ganges and the Brahmaputra valleys, the former province of Cuttack, at the mouth of the Mahanadi. The greater part of the presidency forms a vast alluvial plain, which is by far the most fertile and closely cultivated part of India. The principal industry is agriculture, and immense quantities of rice are grown. Besides rice, wheat, maize, and barley are also grown. Among its other products, the most important are opium, indigo, and jute. The coal mines in the hills are now largely worked, and there are important native manufactures.

Before 1835, Bengal was under the administration of the Governor-General. In that year, however, it was placed under a Lieutenant-Governor, who is assisted by a Legislative Council.

All the great cities of this part of India are situated either on the Ganges or its various tributary streams, and the great lines of communication with the interior follow the course of the river and its tributaries. The principal towns in Bengal are CALCUTTA, MOORSHEDABAD, PATNA, CUTTACK, and DACCA.

1. Each of the British Provinces is divided into *Commissionerships* and *Districts*, termed "Regulation Districts," in contradistinction to the "Non-Regulation Districts," i.e., those Districts—protected and semi-independent Native States—which are not under regular British rule.

2. Before 1835, Bengal was under the administration of the Governor-General. In that year, however, it was placed under a Lieutenant-Governor, who is assisted by a Legislative Council.

**CALCUTTA**, the chief city of Bengal and the capital of British India, stands on the east bank of the River Hugli, the principal arm of the Ganges, at a distance of a hundred miles from the sea. Including Howrah and Balli, on the other side of the river, it has over a million inhabitants. The navigation of the Hugli is dangerous, but its channel is traversed by the largest sea-going vessels, and an immense trade is carried on, chiefly with England and China.

*Plassey*, the scene of Clive's great victory in 1757, lies to the northward of Calcutta. **Moorshedabad** (182) has important native manufactures. **Patna** (167), on the right bank of the Ganges, is the principal town in Bahar and the centre of the rice trade. The largest town in the maritime district of Cuttack is **Cuttack** (49), which is situated on an arm of the Mahanadi. **Dacca** (84), on the eastern arm of the Ganges, is connected by railway with Calcutta; it is noted for its manufactures of *muslin*.

**THE NORTH-WEST PROVINCES** embrace the upper portion of the Ganges valley (including the *Doab*, as the tract between the Ganges and the Jumna is called), and enclose **OUDH** on all sides but the north, which is bounded on that side by the independent State of Nepal. The whole Province has an area of 106,000 square miles, or twice that of England, and a population of 47 millions, an average of 442 to the square mile.

The chief industry in this division is *agriculture*, and large crops of wheat, rice, and other grains are grown. *Indigo*, *opium*, *cotton*, and *sugar* are also successfully cultivated, and much *tea* is now grown in the sub-Himalayan districts.

The North-West Provinces were separated from Bengal in 1833. Oudh was annexed in 1856, and until 1877 formed a distinct government under a Chief Commissioner. Since then, the North-West Provinces and Oudh have formed one Province under a Lieutenant-Governor.

The principal towns are **ALLAHABAD**, **BENARES**, **CAWNPORE**, **AGRA**, **MEERUT**, and **HARDWAR**, in the North-West Provinces, and **LUCKNOW** and **FAIZABAD** in Oudh.

**ALLAHABAD** (177), at the junction of the Jumna and the Ganges, and **Benares** (222), on the north bank of the Ganges, are two of the largest among the inland cities of India, and are among the sacred cities of the Hindus, their numerous temples being the crowded resorts of the devotees of Hindu worship. **Cawnpore** (182), on the right bank of the Ganges, is memorable for the massacre of its English residents during the mutiny of 1857. **Agra** (169) is on the right bank of the Jumna.<sup>1</sup> **Meerut**, notorious as the place where the great mutiny of 1857 broke out, is an important military station, 95 miles north-east of Delhi. **Hardwar** lies on the banks of the Ganges, where it issues from the Himalayas; it is a sacred city of the Hindus.

The capital of *Oudh* is **LUCKNOW** (278), memorable for the defence of the British Residency during the Sepoy insurrection of 1857-58. Lucknow is on the river Goomti, one of the many affluents of the Ganges. **Faizabad** (80), on the Gogra, was the former capital of Oudh.

**THE PUNJAB**<sup>2</sup> embraces the north-western part of the great plain of India, and is so called from the "five rivers" which water it. Three-fourths of this immense territory are under direct British rule, the rest belongs to the 36 Dependent or Feudatory Native States attached to the Province.

1. Near Agra is the *Taj Mahal*, a magnificent building of white marble, and inlaid with precious gems, erected by the Emperor Shah Jehan as a tomb for himself and his favourite wife.

2. The Punjab was proclaimed British territory in 1843, and was placed under a Board of Administration until 1853, then under a Chief Commissioner until 1858, when a Lieutenant-Governor was appointed.

The area of the "Regulation Districts" of the Punjab is 111,000 square miles—rather more than twice that of England. The *population*, in 1891, amounted to 21 millions, an average of 187 per square mile.

About a third of the land is cultivated, and large quantities of wheat, rice and other grains, and cotton, are produced. The principal mineral product is salt, which is found in abundance in the hills—the Salt Range—in the north-west, between the Jhelum and the Indus. The principal towns are LAHORE, DELHI, AMRITSAR, RAWAL PINDI, MULTAN, and PESHAWAR.

**LAHORE** (177), the chief city of the Punjab, stands on the River Ravi, one of the five tributaries of the Indus. It is celebrated as the former capital of the Sikhs, or native inhabitants, of this part of India. **Delhi** (193), on the right bank of the Jumna, is historically noted as the former capital of the Mogul Empire (which in the 16th and 17th centuries embraced nearly the whole of India), and has acquired more recent fame from its siege by the British in 1857. Here, on the 1st of January, 1877, the Queen of Great Britain was proclaimed *Kaisar-i-Hind*—EMPERESS OF INDIA. **Amritsar** (136), to the north-east of Lahore, is the holy city of the Sikhs. **Rawal Pindi** (73) is a great *military station* on the north-western frontier. **Multan** (75) is on the River Chenab. **Peshawar** (84) is situated to the west of the Indus, not far distant from the entrance to the Khyber Pass, and forms a strong military frontier post. It is now connected by rail with Calcutta *via* Lahore and Allahabad, and with the rising port of Karachi *via* Lahore and Multan.<sup>2</sup>

**THE CENTRAL PROVINCES**, which have an *area* of 86,500 square miles (nearly as large as Great Britain) and a *population* (which includes a large proportion of the aboriginal races of India) of 10 millions, include the interior districts enclosed between the upper courses of the Nerbada and the Mahanadi, and traversed from east to west by the Satpura Mountains.

This division was formed in 1861; previous to that year the various provinces were attached to the North-West Provinces and the Punjab. The natural production of these provinces, notwithstanding their great areas of mountain and jungle, are rich and varied. There are large coal-fields, and valuable deposits of iron-ore. Cotton, rice, wheat, and opium are largely grown and exported. The principal towns are JABALPUR, NAGPUR, and SAUGOR.

**NAGPUR** (118) was until 1854 the capital of the Mahratta kingdom so named. It is connected by rail with BOMBAY and CALCUTTA, and is not only the capital of the Central Provinces, but also an important commercial centre for the richly-productive region between Bengal and Bombay. **Jabalpur** (85) is an important commercial town, the traffic which passes through it being "larger than that of any other town in India except Bombay." **Saugor** (45), to the north-west of Jabalpur, is an important military station.

**BURMA** belongs geographically to, and is therefore described under, "Further India" (see pp. 227-8).

**ASSAM** was ceded by Burma in 1825, and was included in the Province of Bengal until 1874, when Lord Northbrook placed it under a Chief Commissioner. It has an *area* of 46,000 square miles, but although the soil is fertile, the province is thinly peopled, the *population*, in 1891, amounting to 5½ millions, an average of 117 per square mile, only about one-fourth the density in Bengal.

1. i.e. the "pool of immortality."

2 The town of Simla, situated a few miles south of the Upper Sutlej, in the eastern extremity of the Punjab, is a much-frequented health-resort, and is the usual residence of the

Governor-General of India during the hot season. It lies at an elevation of 7,800 feet above the sea, and enjoys an atmosphere which is free from the heat experienced in the lower plains.



The tea plantations, for which Assam is chiefly famous, are in the hands of English capitalists. The climate is tropical, and the rainfall, especially in the Khasia States, excessive.<sup>1</sup>

The only considerable towns in the *Brahmaputra Valley* are *Gauhati* and *Goalpara*, both on the banks of the river. The largest town in the *Surma Valley*, to the south of the hill region (which includes the Garrow, Khasia, and Jaintia Hills) are *Sylhet* (14) and *Cachar*, both on tributaries of the Brahmaputra, and the centres of the most important tea-producing district in India. The annual production of tea in Assam amounts to about 70 million lbs. The province is also rich in coal and iron.

**THE BOMBAY PRESIDENCY**, which lies wholly on the western side of India, is about 1,000 miles in length, and has a population of 19 millions. The Native States attached to the Province, of which the largest are *Cutch* and *Baroda*, occupy a third of the total area, which is about 195,000 square miles.

The principal productions of the Bombay Province are cotton, rice, salt (in the Runn of Cutch), sugar and indigo. Much of the cotton grown in the province is now worked up in the large cotton-factories of Bombay itself. The large province of **SIND**, which extends over both banks of the Lower Indus, forms part of this Presidency. The following are the largest towns:—**BOMBAY**, **SURAT**, **BAROCHÉ**, **POONA**, **SATTARA**, **HAIDARABAD**, and **KARACHI**.

The city of **BOMBAY** (804), the capital of the Presidency, is situated upon the island of Bombay, which closely adjoins the coast. Bombay has an excellent harbour, one of the best in India. It is rapidly rising in importance as the chief commercial centre of the Indian Empire, and already commands a larger amount of foreign trade than Calcutta. Bombay is historically noteworthy as one of the earliest English possessions in the East, having been part of the wedding dowry given to Charles II. with his Portuguese bride, Catherine of Braganza, in 1661. **Surat** (108), to the north of Bombay, is at the mouth of the Tapti River. **Baroche**, further north, is on the Narbada. **Poona** (160), an important military station, and **Sattara** lie on the tableland of the Deccan to the eastward of the Ghats. The most important place in the province of Sind is the rising port of **Karachi** (104), a short distance west of the mouths of the Indus. **Haidarabad** (58), also in Sind, is on the east bank of the Indus; near it is the village of *Miani*, where Sir Charles Napier gained his famous victory in 1843.

**THE MADRAS PRESIDENCY** embraces a large part of Central and Southern India, including both the eastern and western shores of the peninsula, besides an extensive portion of the interior plateau. Its area, 140,000 square miles, is nearly three times that of England, while its population numbers 35½ millions, an average of 253 per square mile.

The "Presidency" of Madras includes the old provinces of the *Carnatic*, the *Circars*, *Coimbatore*, *Malabar*, and *Canara*. Its principal towns are **MADRAS**, **TANJORE**, **TRICHINOPOLY**, **MADURA**, **TINNEVELLY**, **TUTICORIN**, and **CALICUT**.

The city of **MADRAS** (450), the capital of the Presidency, is on the Coromandel Coast. It is destitute of any natural harbour, the sea in front being merely an open roadstead. Its commerce is, nevertheless, very considerable and is increasing, especially since the construction of the new pier and harbour of refuge.<sup>2</sup> **Masulipatam** (39) and **Coringa** are to the north of Madras—the former near the mouth of the River Kistna, the latter at the mouth of the

1. At *Cherrapunji* the annual rainfall amounts, in some years, to 650 inches.

2. The eastern coast of India is nearly devoid, throughout its entire length, of any natural shelter for shipping, while the western, or *Malabar Coast*, abounds in good natural harbours.

to the north of Haidarabad, and the surplus revenues of which go to the Nizam's Government. The *finest cotton* grown in India is produced in Berar. The chief city is **Ellichpur**.

The State of **MYSORE** (Maistr), which is also inland, is surrounded by the territories of the Madras Presidency. *Area*, 27,000 square miles; *population*, (1891), 5 millions. The city of **Seringapatam**, seated on an island in the River Cauveri, played a distinguished part in the wars of the last century, when it was the capital of Hyder Ali's extensive dominions. Under his son and successor, Tippu Saib, it was stormed by the British in 1799. Owing to the misgovernment of the Native ruler, this State was placed under a British Commissioner in 1832, but in 1881 it was restored to the native Rajah. The present capital, **Mysore**, lies about 20 miles south-east of the former capital, Seringapatam. The only territory in Mysore now held by the British is the fort and cantonment of **Bangalore**, near the eastern border.

**3. The only Independent Native States are Nepal and Bhutan, on the southern slopes of the Himalayas.**

**NEPAL** lies between the Feudatory States of Sikkim on the east and Kumaon on the west, and is separated from the British provinces of Oudh and Bahar by the pestilential region of the Tarai.

Nepal has an *area* of nearly 57,000 square miles (and is thus nearly as large as England and Wales), and a *population* of about 2 millions. Though bounded on the north by the lofty ranges of the Himalaya Mountains, the Nepaleses carry on a considerable trade with Tibet. Until the British invasion of 1815, the country was virtually a dependency of the Chinese Empire. In that year, however, a *British Political Resident* was placed at **Khatmandu**, the capital.

**BHUTAN** extends east of Sikkim, and comprises the mountainous region lying between the main ridge of the Himalayas and the British provinces of Bengal and Assam. The inhabitants, who number about 200,000, apparently of Mongolian origin, profess *Buddhism*, and are under the rule of the *Deb Raja*, or the secular head, and the *Dharma Raja*, or the spiritual head. The capital is **Punakha**, a place of great natural strength.

**French and Portuguese Possessions:**—Two other European nations—the French and the Portuguese—possess a few stations in India, but they are of little importance either in extent or commercial value.

To the **FRENCH** belong—**Pondicherry**, a seaport town lying to the south of Madras; **Mahé**, a few miles north of Calicut, on the Malabar Coast; and **Chandernagore**, a small town on the River Hugli, north of Calcutta. These are the remains of a power which long contested with Great Britain the sovereignty of India. Their total area is but 196 square miles, while the population is under 300,000.

The **PORTUGUESE** possessions, which together have an area of less than 1,300 square miles, and a population of scarcely half a million, consist of **Goa**, a small territory lying on the west coast of India, between the limits of the Bombay and Madras Presidencies; the port of **Daman**, to the north of Bombay; and the town and port of **Diu**, situated on an island off the south coast of Guzerat. The city of **GOA** was long a splendid emporium of commerce and the chief mart of the Eastern world, but its importance has wholly passed away.

#### QUESTIONS ON INDIA.

1. What does the Indian Empire comprise? How is India bounded, and what is its area?
2. Describe briefly the coasts of India.
3. By what names are the opposite coasts of India distinguished?
4. Give a brief account of the natural features

of Ceylon. What two articles constitute its most characteristic products?

5. Point on the map to the following places:—Colombo, Trincomali, the Laccadive Islands, the Maldive Islands, and the Andaman Islands.

6. What mountain chains and tablelands belong to India?
7. What portion of India is the Deccan, and what are its natural features?
8. Where is the Great Indian Desert?
9. Describe the principal rivers of India.
10. What kind of climate has India?
11. Mention some among the natural productions of India, mineral and vegetable.
12. Where is the tract known as the Runn of Cutch?
13. What is the total population of India? Which parts of the country are most populous?
14. Besides Hindus, what other races are included amongst the population of India?
15. What form of religion is professed by the great majority of the Hindu people?
16. Give some particulars concerning the industrial productions of India.
17. How is India divided? What portion of the whole comes under the designation of British India?
18. What are the limits of the province of Bengal?
19. Where are the North-West Provinces and Oudh?
20. What is Assam chiefly noted for?
21. Where is the Punjab, and why is it so called?
22. What do you know of the Central Provinces? Name the chief towns.
23. Upon what rivers are Calcutta, Benares, Allahabad, Lucknow, Cawnpore, and Agra situated?
24. Where are Plassey and Simla, and for what are they noteworthy?
25. Where and for what is Delhi celebrated?
26. In what part of India are Lahore, Multan, and Peshawar? Point out their places on the map.
27. What part of India is included within the Bombay Presidency?
28. Where is the city of Bombay? By what is it historically distinguished?
29. Where are Poona, Sattara, Surat, and Baroche?
30. Where is Sind? Which is its port?
31. Name some of the provinces that are within the Madras Presidency.
32. Where is the city of Madras? What kind of site does it occupy?
33. Where are Arcot, Masulipatam, Tranquebar, Trichinopoly, and Tanjore?
34. Where are the Nilgiri Hills? For what are they noteworthy?
35. Where are Calicut, Cannanore, and Mangalore?
36. Enumerate as many as you can of the dependent Native States of India.
37. In which of the above States are the towns of Srinagar, Trivandrum, Cochin, Bhoj, Mandivi, and Baroda, respectively?
38. Point on the map to the locality of Kashmir. For what branch of industry is it noted?
39. Name the principal tributary Native States.
40. State what you know of Rajputana and Central India.
41. Describe briefly the Native States of Haidarabad and Mysore.
42. What Native States south of the range of the Himalayas are still independent?
43. What two other nations, besides Great Britain, possess territories in India? Name some of the possessions of each.

## FURTHER INDIA.

**FURTHER INDIA** (or the Indo-Chinese Peninsula) forms the south-easterly division of the Asiatic continent. It embraces the vast peninsula which extends from the Bay of Bengal on the west to the China Sea on the east, and which stretches to the southward into the smaller and more elongated Malay Peninsula.

With the exception of Siam—the only Native State now independent—the peninsula is divided between Great Britain and France. The British Possessions are on the *western* side of the main peninsula, and the French Possessions are on the *eastern* side. Siam lies between them.

**British Indo-China** includes the province of BURMA (both divisions of which—Upper and Lower Burma—form, politically, part of British India), the STRAITS SETTLEMENTS, and the Protected MALAY STATES.

**French Indo-China** includes the colonies of COCHIN-CHINA and TONQUIN, and the Protectorates of CAMBODIA and ANNAM.

The smaller **Malay Peninsula** is divided between Siam and Great Britain.

**EXTENT.**—The total *area* of these territories is about 710,000 square miles, or over 12 times the size of England and Wales.

The native kingdom of Siam has an area of 230,000 square miles; the French Colonies and Protectorates, 196,000 square miles; and the British Possessions and Protectorates, about 236,000 square miles.

**COASTS.**—Very extensive, and possessing several fine harbours.

The most noticeable features along the coasts of the Indo-Chinese Peninsula are the two great Gulfs of **Tonquin** (or **Tong-King**) and **Siam**, both arms of the China Sea on the east, and the **Gulf of Martaban**, opening into the Bay of Bengal, on the west. The two principal headlands are **Cape Negrais**, on the west, and **Cape Romania**, on the south. The latter is not only the southernmost point of the Malay Peninsula, but also of the Asiatic continent. The **Strait of Malacca** divides the Malay Peninsula from the island of Sumatra, and forms the main channel of communication between the Bay of Bengal and the China Sea.

**NATURAL FEATURES.**—Ranges of high ground, lying in the general direction of north and south, with long river-valleys between, form the characteristic features of the Indo-Chinese Peninsula. These are connected, to the northward, with the high region that adjoins the eastern extremity of the Himalayas and the neighbouring provinces of China.

Of the mountain ranges the best known are the **Yoma Mountains**, which form the natural boundary between Upper Burma and the coast district of Aracan in Lower Burma. The **Tipperah Hills** to the south, and the **Patkoi Range** to the north, of the **Manipur Uplands**, are on the western borders of Burma. An irregular line of elevations extend southwards from the mountains of Siam, which form the boundary between Siam and Lower Burma, to the south of the Malay Peninsula.

There are three extensive plains in this region—the **Plain of Pegu**, the **Plain of Siam**, and the **Plain of Tonquin**. The Plain of Pegu adjoins the Gulf of Martaban, an off-set of the Bay of Bengal; the Plain of Siam lies at the head of the Gulf of Siam, which is an arm of the China Sea; the Plain of Tonquin adjoins the Gulf of Tonquin, which is a more northerly arm of the China Sea.

The Indo-Chinese Peninsula has four great rivers—the **Irawadi**, **Saluen**, **Menam**, and **Mekong**. The **Irawadi** and **Saluen** flow into the Gulf of Martaban; the **Menam** into the Gulf of Siam; and the **Mekong**, into the China Sea. The **Irawadi** rises on the Chinese frontier, flows south through Burma, and has a total length of 1,200 miles; it is regularly traversed by British steamers as far as **BHAMO**, 700 miles from the sea. The **Saluen** rises in the mountains to the north of Burma, and has a course of 750 miles, the greater portion of which is navigable. The **Mekong** rises in Tibet and flows through Yunnan, in Western China, Upper Burma, and Siam, its lower course being through Cambodia and Cochin-China. It has a total length of 1,600 miles, but its navigation is rendered difficult by rocks and sandbanks. The course of the **Menam** (900 miles) is entirely within Siam.<sup>1</sup>

**CLIMATE.**—Throughout the Indo-Chinese countries the climate is hot, especially so in the low grounds near the coast, where the air is often unhealthy. The rains are very abundant, but are confined to a brief season of the year.

As in India Proper, the changes of the seasons depend upon the monsoons. In the long and narrow region of the Malay Peninsula, the heat of the Torrid Zone is tempered by the influence of the seas on either side, and the climate of Singapore, at its southward extremity, is not so hot as that of Madras.

**PRODUCTIONS.**—In all these countries the productions of the vegetable kingdom are of the highest value. The forests comprehend

1. The Menam, like the Nile, annually overflows its banks, and thus fertilises the country through which it flows, hence its name, "Me-Nam," "Mother of waters."

many valuable kinds of wood, and various *drugs, spices, and gums* are native to this region. The mineral wealth is also considerable, and *gold* is extensively employed in Siam for purposes of architectural adornment and numerous other uses.

**INHABITANTS.**—The entire region is estimated to contain about 32 millions of inhabitants, of whom about 6 millions are in Siam, 18 millions in French Indo-China, and probably 8 millions in the British portion of the peninsula.

**Race and Language.**—The Indo-Chinese are a race bearing more resemblance to the Chinese than to the people of India. They are more robust in frame than the Hindus, but are short in stature, compared to the European type. Their skin is of a dark sallow brown or olive colour. The various languages spoken are monosyllabic, and are closely allied to the Chinese and Tibetan tongues.

**Religion.**—The Buddhist worship uniformly prevails, and its rites are celebrated with great pomp and display. The temples are gorgeously decorated, and there is much of barbaric wealth and splendour in the palaces of the Native Princes and of the chief nobles.

**INDUSTRIES.**—The industry of these countries is principally agricultural, but there are skilful workers in metal in the towns, and the foreign trade is very large.

**Rice** is the prime article of food. The **sugar-cane** is extensively grown, especially in Siam. The **mulberry** is also an object of extensive culture, for the sake of the silkworm, which is largely reared in Cochin-China and Tonquin. **Cotton, indigo, and tobacco** are grown; but, until recently, the produce of these and other articles of tropical growth has been due rather to the spontaneous fertility of the soil than to any labour or skill bestowed upon their culture.

**Commerce.**—The bulk of the oversea trade of Burma and the Straits Settlements is carried on with the United Kingdom, and there are regular lines of British steamers to Rangun and Singapore. French steamers call at Saigon and the chief ports of Annam and Tonquin.

**GOVERNMENT.**—The only independent native government in the peninsula is that of Siam. Burma is placed under a Chief Commissioner, and, politically, forms one of the great Provinces of British India, and is therefore under the direct control of the Supreme Government at Calcutta. The Straits Settlements forms a Crown Colony, and its Governor controls the British Residents in the Native Protected States of the Malay Peninsula.

The Government of the French Possessions and Protectorates is carried on by native officials under the direction of the Governor-General of French Indo-China at Saigon, with Residents at the capital and chief towns of these countries. The native Sovereigns of Annam and Cambodia have not been deposed, but their power is little more than nominal.

**DIVISIONS.**—The three main divisions of Further India are (1) **British Indo-China**, (2) **Siam**, and (3) **French Indo-China**.

The political and commercial capitals of British Indo-China are **Rangun** and **Singapore**; of Siam, **Bangkok**; of French Indo-China, **Saigon** and **Hué**.

**BRITISH INDO-CHINA** includes the Province of Burma, the Straits Settlements, and the Native Protected States of the Malay Peninsula.

**BURMA**, which is, politically, a Province of British India, includes the western division of the Indo-Chinese Peninsula.

Burma is bounded on the *north* and *north-east* by China; on the *east*, by Siam; on the *north-west*, by Assam, Manipur, and Bengal; and on the *west* and *south*, by the Indian Ocean.

The *area* of the entire province, including the tributary Shan States, is estimated at 200,000 square miles, and the *population*, according to the recent Census (1891), numbers 9½ millions, or 47 to the square mile. The population is much more dense in the lower division of the province than in Upper Burma.

The government of the Province is vested in a *Chief Commissioner*, subordinate to the Governor-General and Council of India. The seat of Government is **Rangun**, a large town on the eastern delta-mouth of the Irawadi.

**LOWER BURMA** consists of three districts along the west coast of the peninsula, which have a total *area* of 87,220 square miles, and a *population* (1891) of 4½ millions.<sup>1</sup>

**ARACAN** is a narrow strip of country lying along the east side of the Bay of Bengal. Its moist climate and marshy plains enable it to furnish a vast quantity of rice, which is exported from **Akyab**, the capital. **Aracan**, the old capital, is on a river of the same name about 50 miles from the sea.

**PEGU**, the most important division of Burma, includes the delta of the Irawadi, a fertile but unhealthy region. Although the area of this division is only twice that of Aracan, it has five times the population. The staple product is *rice*. There are also vast forests of *teak* and other valuable tropical woods. **RANGUN** (181), on one of the branches of the river, is an important seat of trade, and is the commercial as well as the political capital of the whole province.

The districts known by the general name of **TENASSERIM** extend along the eastern side of the Gulf of Martaban. The climate is tropical, and the productions include *rice*, *cotton*, *indigo*, &c. Most of the land, however, is covered by vast forests, and *teak* and other woods are largely exported. **Amherst**, **Tavoy**, and **Mergui** are small seaports, but with considerable trade. The town of **Maulmain** (58), prettily situated near the mouth of the River Saluen, is the chief port and the chief town, and is an important seat of trade.

**UPPER BURMA**, which was annexed to British India in 1886, after the third Burmese War, occupies the north-western portion of the peninsula. Its *area*, including the tributary Shan States, is estimated at 180,000 square miles, or about three times that of England and Wales; and its *population* at 5 millions.

Upper Burma is physically divisible into the three great valleys of the Irawadi, Saluen, and Mekong. That of the Irawadi forms, in fact, an extensive plain, bounded on the west by the Yoma Mountains. The climate is tropical, and the productions include *rice* (the staple crop), *wheat*, *maize*, *tobacco*, *cotton*, *indigo*, *teak*, &c. The mineral wealth is also considerable, *iron*, *lead*, *copper*, *petroleum*, and *coal* being widely diffused; some *gold*, *silver*, and *precious stones*—especially *rubies*—are also found. The Irawadi is the main channel of communication, and is now regularly navigated by steamers as far as **Bhamo**, near the Chinese frontier, 700 miles from the sea. The chief town and capital is **MANDALAY** (188), on the left bank of the Irawadi. Further south are the former capitals of **Amarapoora** and **Ava**, also on the banks of the same river. About one hundred miles south of Ava are the ruins of the ancient capital city of **Pagan**, with its numberless temples.

1. The northern and southern districts—Aracan and Tenasserim—were annexed in 1825, at the close of the first Burmese war. The central district—Pegu—was annexed in 1862, after the second Burmese war. These three divisions

were formed into the Province of British Burma in 1862.

2. Large quantities of edible birds' nests, so highly esteemed as an article of luxury by the Chinese, are exported from the islets of the *Mergui Archipelago*.

**SIAM** occupies the central part of the Indo-Chinese Peninsula, and consists, physically, of two well-marked divisions—the main portion lying north of the Gulf of Siam, and extending from Annam on the *east* to Burma on the *west*. Lower Siam consists of a narrow strip of territory extending along the eastern side of the isthmus, with the northern portion of the Malay Peninsula.

The *area* of the Siamese Kingdom, including the semi-independent Lao or Shan States in the north, is probably not far short of 230,000 square miles, or nearly 5 times that of England and Wales. The *population* is estimated at 6,000,000, consisting of Siamese, 2,000,000; Chinese, 1,000,000; Laotians or Shans, 2,000,000; and Malays, 1,000,000.

The characteristic physical features of the mainland of Siam are similar to those of Burma, and include the extensive valleys and plains of the **Menam** and the **Mekong**. The basin of the former is entirely within Siam; the latter waters successively Eastern Tibet, the Chinese province of Yunnan, the Shan States, Siam, Cambodia, and Cochin-China. The northern highlands are inhabited by various Shan tribes, some of which are entirely independent, while others acknowledge the suzerainty of Siam by the payment of a small tribute. The States of *Kedah*, *Patani*, &c., in the northern part of the Malay Peninsula, also send tribute to Bangkok.

The climate is tropical, and the natural productions are rich and varied. Much of the country is covered with dense forests, and teak, sandalwood, &c., are largely exported. The tin mines of the Kulen district, in the southern part of the province of Kedah, in Lower Siam, are being actively worked. The staple export of Siam is rice. There are some manufactures of pottery, iron, &c., but on a limited scale. In fact, the trade and industry of the country is paralysed by the serfdom in which the lower classes are kept by the nobles. In all parts of Siam, the natives are subject to forced labour for a period of one to three months in the year.

The form of Government in Siam is an **absolute monarchy**. The King's revenue is about 2 millions a year, and the expenditure is less than the receipts. There is no Public Debt. The army, service in which is compulsory, is officered by Europeans. The capital of Siam is the busy port of **BANGKOK** (600), on the left bank of the Menam, about 20 miles from the sea. A large number of the inhabitants of this "Venice of the East" live in boat-houses on the river. **Paknam**, at the mouth of the Menam, is the Customs station for the capital, which is connected by rail with **Korat** in the interior. About 45 miles north of Bangkok lies **Ayuthia**, the former capital. **Singora**, an important town on the eastern coast of the Malay Peninsula, is to be connected by railway with **Saiburu**, and thence with the **Kulen tin district**.

**FRENCH INDO-CHINA** includes the eastern and by far the most populous part of the peninsula. The Colony of Cochin-China, the Protectorates of Cambodia and Annam, with the Dependency of Tonquin, have a total *area* of about 196,000 square miles, and a *population* of about 18 millions.

The French Colony of **COCHIN-CHINA** is bounded by the China Sea on the south and east; and by the Protectorates of Cambodia and Annam on the north. It has an *area* of 23,000 square miles (about two-fifths that of England and Wales) and a *population* of about 2 millions, three-fourths of whom are Annamites.

Physically considered, French Cochin-China comprises the delta of the River Mekong and portions of the adjoining plains. The country is one of the most fertile in the peninsula, but also, on account of its hot and moist climate, one of the most unhealthy. Large quantities of *rice*—the staple product and the largest of its exports—*cotton*, *tobacco*, *indigo*, *teak*, &c., are exported from the

river port of SAIGON (100), on the Saigon River, the capital of the colony and also of all the French Possessions in Indo-China. The other chief towns are Mytho, Bassac, and Vinh-Long.

CAMBODIA was formerly an extensive and powerful kingdom, but the aggressions of Annam and Siam had, at the time of the French conquest of Lower Cochinchina, resulted in the annexation of most of the provinces and the subjection of the rest of Siam. The latter, however, was erected into a kingdom in 1863, under the protection of France. Cambodia has an area of about 32,000 square miles, and a population of between  $1\frac{1}{2}$  and 2 millions.

Physically, Cambodia is included in the basin of the River Mekong. In the forest region of the west is the great lake of Tali-Sap or Bien-ho, which is drained into the Mekong by the Tali-Sap River, on which stands Udong, the former capital. The internal trade, however, centres at Pnom-Penh, the present capital, at the junction of the Tali-Sap and the Mekong, and the foreign trade at the port of Kampot, on the south coast.

The formerly independent empire of ANNAM lies on the eastern side of the Indo-Chinese Peninsula, and is bounded by the Chinese provinces of Kwang-si and Yunnan on the north; by Cambodia, Siam, and Burma on the west; and by the China Sea on the east. The total area of the Empire is estimated at 140,000 square miles (nearly three times that of England), and the population at about 14 millions. Tonquin itself has an area of 85,000 square miles and a population of 9 millions.

Annam consists, physically, of three main divisions—the wide basin of the Song-ka River in the north, a narrow coast-district bounded inland by a lofty chain of mountains, and the almost unknown interior tract between the southern portion of this range and Cambodia.

The first of these divisions forms the province of TONQUIN, the whole of which has been absolutely ceded to France—the rest of the empire being under the protection of France, but still governed by its native sovereign and officials. The rich alluvial plains of Tonquin produce abundance of rice, which is largely exported from Hanoi or Kesho (150), a busy port on the Song-ka River, about 100 miles above its mouth.

The southern division of Annam, sometimes called *Upper Cochinchina*, is well watered by numerous short rivers, on one of which lies Hué (60), the capital of the country. Hué, which was taken by the French in 1883, is strongly fortified, and is still occupied by French troops.

**THE STRAITS SETTLEMENTS**,<sup>1</sup> on the western side of the Malay Peninsula, form a distinct Dependency of the British Crown. They comprise Penang, Wellesley Province and the Dindings, Malacca, and Singapore, and have an area of nearly 1,500 square miles, and a population of about 600,000, an average of no less than 400 per square mile.<sup>2</sup>

Penang, or Prince of Wales' Island, is a small but beautiful and fertile island off the west coast of the Malay Peninsula. It was ceded to the East India Company in 1875 by the Rajah of Kedah (or Queddah). Georgetown, on the east coast of the island, is the chief town.

Wellesley Province, on the mainland opposite Penang, acquired in 1800, and the Dindings, a group of islands 80 miles south of Penang, and a strip of the mainland cut out of the Protected Native State of Perak, are dependencies of Penang.

1. So called from their position on the Strait of Malacca.

2. The great commercial importance of the Straits Settlements may be inferred from the fact that the imports amount to nearly 150

million dollars a year, and the exports to more than 130 million dollars. The direct trade with the United Kingdom alone amounts to 80 million dollars.



**Malacca**, the largest as well as the oldest of the Straits Settlements, comprises a strip of territory on the west coast of the peninsula about 240 miles south of Penang. The chief produce is *tapioca*. The town of **Malacca** has about 5,000 inhabitants, but its formerly important trade has declined since the purchase of Singapore in 1819.

The great emporium of **SINGAPORE** (140) is upon an island of the same name, at the extremity of the Malay Peninsula. The island, which is about 27 miles in length and 14 miles in breadth, is divided from the mainland by a narrow strait. Singapore is the seat of the general Government of the Straits Settlements, and the centre of an immense trade with the surrounding countries and the United Kingdom and America. The harbour of Singapore is defended by strong batteries, and there is a permanent British garrison.

Nearly the whole of the Malay Peninsula, south of the territories conquered and annexed in 1821, is now under British protection or included in the Colony of the Straits Settlements. The entire region has an *area* of about 35,000 square miles, and has immense agricultural resources and great mineral wealth.

The Native States of **Pérah**, **Selangor**, **Sungei Ujong**, the **Negri Sembilan**, **Pahang**, and **Johor**, are closely connected with the Straits Settlements—the *British Residents* or *Political Agents*, under whose advice and direction the native Sultans or Rajahs govern, being directly subject to the Governor of that Colony.<sup>1</sup>

#### QUESTIONS ON FURTHER INDIA.

1. In what part of Asia is the Indo-Chinese Peninsula situated? By what seas is it bordered upon either side?
2. What countries are contained within this peninsula?
3. Name the mountains, plains, and rivers that belong to this region.
4. Describe briefly the climate and natural productions of this region.
5. What race of people constitutes the inhabitants of these countries? What form of religion prevails?
6. What is the distinguishing feature of their industry?
7. Under what government are these countries? Name the main divisions of Further India.
8. What portions of the peninsula belong to Britain? Describe briefly the province of Burma.
9. Where are the towns of Akyab, Rangun, and Maulmain?
10. What article of produce is derived extensively from Aracan? What conditions of physical geography favour this?

11. What are the principal natural features of Upper Burma? Name the chief town.
12. Where are the Shau States?
13. What part of the peninsula does Siam occupy?
14. What river is entirely within Siam?
15. What hinders the development of the trade and industry of Siam?
16. What is the form of government? On what river is the capital?
17. What portions of the peninsula are included in French Indo-China?
18. Where are Cochin-China and Cambodia?
19. Annam consists physically of three main divisions. Name them.
20. Name the chief towns of Annam, Cambodia, and Cochin-China.
21. Describe the climate and productions of French Indo-China.
22. Why are the "Straits Settlements" so called? Which is commercially the most important?
23. Name the principal protected Native States of the Malay Peninsula.

#### THE CHINESE EMPIRE.

The **CHINESE EMPIRE** extends over more than a fourth part of Asia, and comprises an area which is considerably greater than that of all Europe.

But China itself constitutes only a portion of this widely-extended dominion. Tibet, Mongolia, Manchuria, Eastern Turkestan, and Zungaria, with Corea, besides China Proper, are included within an Empire which stretches across 53 degrees of longitude and 34 degrees of latitude—a distance of 3,000 and 2,400 miles respectively—and containing a total *area* of about  $4\frac{1}{2}$  million square miles—one-twelfth part of the entire land-surface of the globe—with a *population* said to amount to 400 millions.

<sup>1</sup> The *Cocos*, or *Keeling Islands*, in the Indian Ocean, were annexed to the Straits Settlements in 1838, and *Christmas Island* in 1839.

## I. CHINA.

**CHINA** is a large country of Eastern Asia, and is by far the most important portion of the Chinese Empire. It is bounded on the *north* by Mongolia; on the *east*, by the Pacific Ocean; on the *south*, by the China Sea and Tonquin; and on the *west*, by Burma and Tibet.

China is divided from Mongolia by the *Great Wall of China*, a vast rampart of earth 10 to 30 feet high, which runs over hill and valley for 1,250 miles along the northern border-line of China, and was built in order to protect the country from Tartar invasion—a purpose which, like all similar works, it failed to fulfil.

**EXTENT.**—The area of China is estimated at  $1\frac{1}{2}$  million square miles, which exceeds by 26 times the magnitude of England and Wales, or nearly 12 times the entire area of the British Islands.

The direct distance from the most southerly point of the province of Kwang-tung to the Great Wall north of Pekin, is 1,500 miles, or to the northern limit of the transural province of Leao-tong, about 1,750 miles. In the south, the width along the 24th parallel, from the Burmese frontier near Bhamo to Amoy, is 1,350 miles, or rather more than the distance between the extreme eastern point of the province of Shang-tung and the western boundary of Kan-su in the north.

**COASTS.**—The coast-line of China is extensive, being upwards of 2,500 miles, or, if we include the minor indentations and inlets, 5,000 miles, equivalent to 1 mile of coast to every 300 square miles of area. A vast number of islands and islets skirt the coast, especially between the mouths of the Canton River and the Yang-tze-kiang.

1. The chief Inlets are the *Gulfs of Pe-chi-li* and *Leao-tong*, the *Bays of Corea* and *Hang-Chow*, and the *Gulf of Tonquin*.

2. The most important Straits are the *Strait of Pe-chi-li*, between the gulf of the same name and the Yellow Sea; the *Strait of Formosa*, between the East Sea and the China Sea; and the *Strait of Hainan*, between the China Sea and the Gulf of Tonquin.

**ISLANDS.**—The principal islands are Formosa, Hainan, Hong-Kong, and Chusan.

1. **Formosa**, or the Beautiful, was so called by the Portuguese; the Chinese call it *Tai-wan*, or "Tower Bay," from its principal port. The western districts only are completely subjugated, the central and eastern portions are still occupied by independent aboriginal tribes. At *Kelung*, on the northern coast (which was temporarily occupied by the French in 1855), *coal-mines* are worked.

2. **Hainan**, 180 miles long by 100 broad, lies in the south between the China Sea and the Gulf of Tonquin. The coast districts are occupied by the Chinese, but the aboriginal and barbarous tribes of the interior are virtually independent. Its capital is *Kien-Chow*, a populous city on its northern coast. Its chief port, *Kiung-Chow*, on the south-west coast, is open to foreign trade.

3. **Hong-Kong** was ceded to Britain in 1842.<sup>1</sup> It is hilly, well watered, and tolerably healthy, and its situation, off the mouth of the Canton River, gives it political and commercial importance. Its area is 80 square miles. Its population numbers about 221,500, of whom 211,000 are Chinese. The chief town is *Victoria*, on the north coast of the island.

1. Hong-Kong was taken possession of in 1841, but formally ceded in 1842. The opposite peninsula of Kowloon, which is becoming a populous and thriving district, was ceded in 1861.

4. **Chusan**, the largest of a group of islands off the entrance to Hang-Chow Bay, was taken by the British in 1840, and held for some time as a guarantee for the payment of the war indemnity.

**MOUNTAINS.**—The greater part of China is mountainous. Its western and south-western provinces especially are covered with high mountain chains, the peaks of which rise above the snow-line.

All the great ranges within China have a general east-to-west direction, e.g., the ranges of the *Pe-ling*<sup>1</sup> and *Nan-ling*<sup>2</sup> which enclose the basin of the Yang-tze-kiang; the former separating it from that of the Hoang-ho on the north, and the latter from that of the Si-kiang on the south. The Pe-ling range dips south-east in 113° W. long., and terminates in low hills about two degrees further west. The Nan-ling, on the contrary, after an almost direct course due east for upwards of 1,000 miles, curves abruptly north-north-east at a point (25° N. lat., 116° W. long.) about 150 miles west of the port of Amoy, and trends in that direction almost parallel to the coast for 400 miles, finally terminating in the hilly region west of Hang-Chow. This portion of the range is known as the *Ta-ju-ling* or *Bohea Mountains*. The lofty mountain chain on the western border, separating China Proper from Tibet, and which marks the eastern limit of the great tableland of central Asia, bears the name of *Yun-ling*. Of the minor ranges, the most important are (1) the *Ta-pa-ling*, a southerly spur of the Pe-ling Mountains, between the Yang-tze-kiang and its great northern affluent, the Han-kiang; and (2) the *Yu-ling*, a minor ridge of the Yun-ling, extending eastwards between the basins of the Si-kiang and the Song-ka rivers.

**Plains.**—The north-eastern part of China forms the extensive lowland known as the *Plain of China*, which is 700 miles long and covers an area of more than 200,000 square miles. The lower courses of its two great rivers are through this plain, which is very fertile, and constitutes the most populous portion of the Chinese Empire.

**RIVERS.**—The four most important rivers of China are the Yang-tze-kiang, Hoang-ho, Si-kiang, and Pei-ho, which together drain more than four-fifths of its total area.

1. The **Yang-tze-kiang**,<sup>3</sup> or "Blue River," is the longest river in the eastern half of the globe, and is navigable for large vessels to Ichang, 1,200 miles from the sea, and for 600 miles further up to the new port of Chung-King—the commercial capital of Western China—it is navigable for smaller steamers, while junks and small boats can ascend some hundreds of miles still higher up the river. Its total length is 3,200 miles; and at Hankow, 700 miles inland, it is fully a mile in width, but its depth and volume vary considerably with the seasons. This great river drains nearly a million square miles of territory.

2. The **Hoang-ho**, or "Yellow River," like the Yang-tze-kiang, rises in the plateau of Central Asia, but is not so capable of navigation, owing to sudden changes of depth and volume, and sometimes of channel. Previous to the great floods of 1851-53, its outlet to the sea was about 100 miles north of the mouth of the Yang-tze-kiang; but it then altered its course, and made an outlet into the Gulf of Pe-chi-li, 300 miles further north than its former embouchure.

3. The **Si-kiang**, 900 miles long, waters the provinces south of the Nan-ling Mountains. Its estuary—the Canton River—is one of the most important commercial waterways in China.

4. The **Pei-ho** is formed by the confluence of several rivers at Tientsin—the port of Peking—and flows into the Gulf of Pe-chi-li.

5. Of the minor rivers that water the districts between the basins of these four great rivers, the most important are (1) the *Min*, which rises in the

1. Pe-ling, "northern mountains."

2. Nan-ling, "southern mountains."

3. The Yang-tze-kiang rises among the southern slopes of the Kuen-Luen mountains, and its

upper course is divided from the headwaters of the Hoang-ho by the *Bain-kara-ula Mountains*, as the south-easterly spur of the Kuen-Luen is called.

Bohea mountains and drains the maritime province of Fo-kien;<sup>1</sup> (2) the upper courses of the *Song-ka* or Red River, the *Mekong*, and the *Salween* are within the south-eastern province of Yunnan; their middle and lower courses belong to Further India. The *Song-ka* is a navigable stream, and likely to become of considerable commercial importance.

**Lakes.**—Three large lakes, *Po-yang*, *Tong-ting*, and *Tao-hoo*, adjoin the course of the *Yang-tze-kiang*.

**CLIMATE.**—The climate of China is generally temperate, but it is one of great extremes at opposite seasons. The summers are very hot, and the winters excessively cold. This is the case all over central and eastern Asia.

**PRODUCTIONS.**—Of natural productions, the *tea-plant* is the most remarkable. It is a shrub of moderate size, which grows abundantly in the south-eastern provinces of the country—*Kwang-tung*, *Fo-kien*, and *Che-kiang*—where it is cultivated with great diligence. The leaves are gathered at particular seasons, and according to the period at which they are picked, and the process of drying which they afterwards undergo, they form either the black or green teas of commerce.

1. China abounds in useful and valuable productions of the vegetable world. The *orange*, *mulberry*, *jujube*, *sugar-cane*, and *cotton-plant* are native to its soil, and flourish throughout its middle and most favoured belt of country.

2. The mineral produce is also of high value. Good *coal*<sup>2</sup> abounds. The mountain provinces of the south-west yield the precious metals, and ores of *iron*, *copper*, *lead*, *tin*, and *mercury* are extensively distributed through various parts of the country. There are valuable *salt* wells in the Min River district in Western China.

**INHABITANTS.**—China is said to contain upwards of 380 millions of inhabitants, or about one-fourth of the human race. It is by no means certain that this is the case, but the amount—vast as it is—implies a less ratio of population to the square mile than in England.<sup>3</sup>

China abounds in large cities, and the banks of its rivers and canals literally swarm with human life. Great numbers of Chinese emigrate annually, and they are settled numerously in every part of the East Indian Archipelago, as well as India, Australasia, and California.

**Education and Religion.**—Education is general, and well advanced. All government appointments are given to candidates successful in repeated competitive examinations. There is no national or State religion, although *Confucianism*, which is mainly professed by the higher and learned classes, is sometimes regarded as such. The lower classes are mostly *Buddhists*, while vast numbers are attached to the degrading superstitions of *Taoism*.

1. There is another river of the same name in Western China; it is a tributary of the *Yang-tze-kiang*.

2. There are large coalfields in all the provinces of China Proper, and the annual output is rapidly increasing. The coalfields of the United Kingdom are much less extensive than those of China, but the quantity produced exceeds 180 million tons a year.

3. Taking the Chinese official estimates of the area and population as correct, the average

density of population is 234 per square mile. In England the average is 540, which is only exceeded by the province of *Shang-tung* in the north-east. In the transmaral province of *Lea-tong*, in the extreme north-east, the average is only 10 persons per square mile, and in Yunnan, in the west, only 100; but in the two provinces of the lower *Yang-tze-kiang* (*Ngan-hwei* and *Kiang-si*) the average is 428 and 346 respectively. A recent official *Yellow Book* gives the number of people as 303½ millions.

**INDUSTRIES.**—The great industries of China are agriculture, manufactures, and commerce. The mass of the population derive their subsistence from the soil, which is tilled with extreme care, and the pursuit of *agriculture* is held in the highest esteem. Rice is the chief article of food, and tea the universal beverage. Of *manufactures*, silk and cotton are the most important. The silkworm is a native of China, and is reared in vast numbers throughout the middle and southern provinces.

The manufacture of earthenware is also of national importance, and the term by which the finer description of pottery is commonly known in our own country indicates the fact of its original derivation from China. A great number of earths and other mineral substances are employed in this manufacture, and a place called Kin-te-ching (in the inland province of Kiang-si, south of the river Yang-tsze) is its central seat. The *White Wax* industry and the manufacture of *salt* are among the most important of the indigenous industries in Western China. The carving of ivory, the making of tea-caddies, trays, and other lacquered ware, various works in metal, and, more than all, the art of printing from raised blocks, indicate the skill and ingenuity of the Chinese artisans.

**Commerce.**—The foreign trade of China, which is chiefly carried on with the United Kingdom, Hong-Kong, and other British Colonies, amounts to about 50 millions sterling a year.

The characteristic and best known product of China is *tea*, which is exported in vast quantities, not only to the different countries of Europe and the United States, which maintain a maritime intercourse with the Chinese "*Treaty Ports*," but also by the overland route to the countries of Northern and Central Asia. Besides tea, the Chinese export *raw silk* and *silk goods*, *sugar*, *straw-braid*, *paper*, *porcelain*, *lacquered wares*, *ivory*, and various ornamental articles. They import the *cotton* and *woollen goods* of England, and the opium of British India, *metals* and *coal*, together with a great variety of articles from the islands of the East Indian Archipelago—as *pepper*, *betel-nut*, *sandalwood*, *ebony*, *ivory*, and *mother-of-pearl*, with *edible birds' nests*, and *trepang* (or sea-slug), the two latter being highly valued as luxuries.

The foreign commerce of China is carried on through the 22 "*Treaty Ports*," of which the most important are *Shanghai*, *Canton*, *Foochow*, *Hankow*, *Swatow*, *Amoy*, *Tientsin*, and *Chefoo*.

**Internal Communication.**—There are numerous *Imperial roads*, but most of the internal trade is carried on by means of the magnificent rivers, which are connected together by a network of *canals*. Of the latter, the most important was the famous *Grand Canal*, which extends for 700 miles through the great plain, and formed the main highway for the conveyance of rice and other articles to the capital. But the changes in the course of the Hoang-ho, when it abandoned its former bed, and made for itself a new channel into the Gulf of Pe-chi-li, have destroyed portions of the canal, and rendered it necessary, pending the construction of railways, to adopt a seaward route for the commercial intercourse between Peking and the provinces to the southward. The telegraph lines are being rapidly extended.

**GOVERNMENT.**—The Government of China is an absolute despotism, based throughout upon the assumption of parental authority. The Emperor is the recognised vicegerent of Heaven, and father of all his subjects; through all the gradations of society the same notion of parental authority is carefully preserved. The *mandarins* (as the various civil and military authorities of China are styled by Europeans) constitute nine different orders of rank, each in regular subordination to that immediately above it.

The public *Revenue* is not known, but is supposed to amount to about 20 millions sterling, one-fifth of which is derived from the *foreign customs*, and

1. The greater part of China forms a fertile | the development of railways, but there are only  
populous plain, and is specially well adapted for | two short lines in the whole empire.

the rest chiefly from duties and taxes on *land, salt, opium, and rice*. The Expenditure is mainly for the army, which is estimated to cost about 15 millions sterling a year. The total external Debt is about 5 millions, and the internal Debt about 8½ millions.

The military forces of China are divided into two great divisions, the Tartar and the Chinese, and number upwards of 1,000,000 men. The imperial navy consists of numerous *war-junks, 8 ironclads*, and a number of *crusers, gun-boats, and torpedo-boats*, and other vessels, some of which were built at the Chinese arsenals at Shanghai and Foochow.

**DIVISIONS.**—China Proper is divided into 18 Provinces, hence its native name—*Shi-pa-shêng*, “the eighteen Provinces.”

Provinces.	Capitals.	Provinces.	Capitals.
1. Pe-chi-li . .	Pekin.	10. Houpeh . .	Wuchang.
2. Shantung . .	Tsinan.	11. Hoonan . .	Changaha.
3. Shanai . .	Taiyuen.	12. Shenai . .	Si-ngan.
4. Honan . .	Kaifong.	13. Kansu . .	Lanchow.
5. Kiangsu . .	Nankin.	14. Szechuen . .	Chingtu.
6. Nganhwei . .	Nganking.	15. Kwantung . .	Canton.
7. Kiangsi . .	Nanchang.	16. Kwangsi . .	Kwelling.
8. Chekiang . .	Hangchow.	17. Kweichow . .	Kweiyang.
9. Fokien . .	Foochow.	18. Yunnan . .	Yunnan.

Not included in the above list is the Transmural Province of *Shing-king* or *Leaotong* (capital, *Mukden*), incorporated with China after the conquest of the country by the Manchu Tartars in 1644, and the two Insular Provinces of *Formosa* (capital, *Tai-wan-fu*) and *Hainan* (capital, *Kien-Chow*).

**TOWNS.**—The cities of China are generally of large size—many of them have each several hundred thousand inhabitants. *Pekin*, the capital of the Empire, contains at least a million of inhabitants, and *Canton* is much more populous. Among the most important cities, besides *Pekin* and *Canton*, are *Shanghai, Nankin, and Hankow*—all three situated within the valley of the *Yang-tze*—and *Hangchow, Ningpo, Foochow, and Amoy*, on the coast to the south of the *River Yang-tsze*.

**PEKIN** (1,000), or the “Court of the North,” the capital of the Chinese Empire, is in the north-eastern part of the country, near the *River Peiho*, and not far from the *Great Wall*; 50 miles further down the same river is the great port of *Tientsin* (1,000), about 30 miles from its mouth. *Nankin* (450), which, as the “Court of the South,” ranked second in importance to *Pekin*, the “Court of the North,” is on the south bank of the *Yang-tze*. *Shanghai* (400), on the coast at the southern entrance to this great river, was first opened to European commerce in 1842, and has become the chief commercial emporium of China. *Hankow* (800), higher up the river, is the chief mart of the tea districts in the interior. *Iehang* (over 1,000 miles from the sea), is an important port, and 600 miles further inland is *Chung-King*, the new “Treaty Port,” on the Upper *Yang-tze*. *Foochow* (600) is a great tea port. *Amoy* (100) is an important manufacturing and commercial town on an island off the coast of *Fokien*, opposite *Formosa*. *Si-ngan*, the capital of the Province of *Shen-si*, is a walled city, 6 miles square, and the largest town in the interior of China. *Canton* (2,000), the “City of Perfection,” was long the sole point of intercourse between the Chinese and the people of other lands, and the only emporium of the tea trade. This great industrial and commercial city stands at the head of an extensive estuary—the *Canton River*—into which the *Si-kiang* falls. A group of islands lies off the entrance of the *Canton River*; one island (the second in point of size) of this group is *Hong-Kong*, which belongs to Great Britain. On an island on the western side of the estuary is *Macao*, which belongs to the Portuguese.

II. **TIBET**, an inland country, is to the west of China Proper, and is divided from India on the south by the *Himalaya Mountains*. It consists of a vast tableland, upwards of 15,000 feet above the level of the sea, and has an *area* of about 650,000 square miles (or about 11 times that of England and Wales), and a *population*, consisting for the most part of Mongolians, of 6 millions.

Besides the *Himalaya Mountains* on its southern border, the tableland of Tibet is crossed by stupendous mountain chains—the *Karakoram Mountains* and the *Kuen-Luen Mountains*—which extend through it in the direction of east and west. Numerous rivers originate in this elevated region, and descend thence to the surrounding plains. The *Sanpu* or *Upper Brahmaputra* drains the southern valleys of Tibet. The north-eastern and eastern districts are watered by the *Upper Yang-tze-kiang* and the *Upper Saluen* and their tributaries. The lake of *Rakas Tal*, lying at an elevation of 15,200 feet, gives origin to the *Sutlej*, and the main stream of the *Indus* originates in the high mountain region of Western Tibet. The ring-like *Lake Palti* (13,500 feet above the level of the sea) lies between the Sanpu and the Himalayas, to the north of Bhutan. The *Tengri Nor* (a large lake to the north of Lhasa), which receives the drainage of a large district in the interior, is upwards of 15,000 feet above the sea-level.

The industry of Tibet is almost wholly pastoral. Vast herds of sheep, mountain goats, and buffaloes are reared, and supply the materials for extensive traffic. The fine hair of the Tibetan goat is woven into Cashmere shawls.

Though under the recognised sovereignty of China, the native institutions of Tibet appear to be little interfered with. The real sovereign of the country is the *Grand Lama*, or high-priest of the Buddhist religion, of which Tibet is the centre. The *Chinese Viceroy* resides at the town of **LHASA**, the capital of the country. Lhasa contains the vast temple of the Grand Lama, which is annually visited by thousands of pilgrims from all parts of Central Asia, and near it is the great monastery of *Debang*, in which no less than 6,000 priests reside. A second Grand Lama—the *Tesho Lama*—resides at *Shigatse* (on the Sanpu, about 200 miles west of Lhasa), the monasteries of which contain 3,000 priests.

III. **MONGOLIA** comprehends a vast region of Central Asia,  $1\frac{1}{2}$  million square miles in extent, lying between China and Siberia, and stretching from the Thian Shan and the Altai Mountains on the west, to the Great Khingan Range on the east. This immense region is but thinly peopled, the *population* being probably less than 2 millions.

This vast upland, which averages about 3,000 feet above the sea, is the true primeval home of the great Mongolian branch of the human family. Its grassy steppe-lands enclose the great desert region known as the Gobi or Shamo, a waterless and treeless plain, 2,000 miles in length, with an average width of 500 miles.

To the south and east of north-western Mongolia, the most favoured portion of this vast region, stretches a dreary lifeless waste of shifting sands, destitute alike of vegetation, birds, and animals.

Mongolia is wholly a pastoral region, and the Mongol of the present day is a shepherd and, when occasion requires, a warrior, as his ancestors were in the days of Timor and Genghiz Khan.

The few towns in this vast territory are found upon the frequented routes of commerce. Amongst them are *Ulias-sutai* and *Kobdo*, both within the north-westerly portion of the territory. *Urga*, the principal seat of the Buddhist lamas, is simply a "camp" on the banks of the Tola, an affluent of the Selenga.

**IV.—ZUNGARIA** includes the wild and desolate region between the Thian-Shan and the Altai Mountains, and is bounded by Eastern Turkestan on the *south*, and by Russian Central Asia on the *west*.

The area of this region is about 150,000 square miles, or three times that of England, but the population, consisting mostly of Chinese exiles and Kal-muck refugees from the Russian "governments" on its western borders, does not exceed 600,000. The largest town, **Urumsai**, is in the south, on the northern slopes of the Thian-Shan. **Kulja**, on the River **Ili**, is an important place of trade, as it is near the Russian and Chinese borders, and is a much-frequented route for merchants passing from one country to the other.

**V. EASTERN TURKESTAN**, the most westerly province of the Chinese Empire, is a vast embayment enclosed by the lofty ranges of the **Karakoram**, the **Pamir Plateau**, and the **Thian-Shan** or **Celestial Mountains**, and inclining on the east towards the basin of **Lob Nor**, in which the waters of the River **Tarim** are lost.

The climate is one of great extremes. In the sheltered valleys within the mountain regions and in the lowlands, wherever irrigation is possible, large crops of *grain* and *fruit* are grown. Some *silk* and *cotton* are also produced, and large numbers of *sheep* and *horses* are reared on the upland pastures. **Kashgar** (170), the capital of the province, is the largest town, but **Yarkand** (100) is commercially the most important, as it stands on the trade route from Inner China to Kashmir, in India, through the **Karakoram Pass**. The **Terek Pass** trade route, between China and Russia, passes through **Kashgar**. **Khotan**, also an important trading centre, lies north-east of the **Karakoram Pass**.<sup>1</sup>

**VI. MANCHURIA** is an extensive but little known tract of country lying east of **Mongolia**, and limited on the northward by the course of the River **Amur**, the lower portion of which lies within the Russian dominions.<sup>2</sup>

The country is politically divided into (1) the province of **Tsitsikar** in the north-west, a triangular tract bounded by the **Khingun Mountains**, the **Amur**, and the River **Sungari**; (2) the province of **Kirin-ula** in the south-east, embracing the long strip between the Lower **Sungari** on the north, and the **Shan Alin Mountains** and the **Ussuri River** on the east; and (3) the province of **Leaotong** or **Shing-king** in the south. The first two provinces are within the basin of the **Sungari**, the great river of **Manchuria**; the latter comprises the lower part of the basin of the **Leao-ho**.

Both **Manchuria** and **Mongolia**, along with **Eastern Turkestan**, were formerly included under the general appellation of **Chinese Tartary**. The southern province, **Leaotong** or **Shing-king**, is inhabited principally by Chinese, and is now regarded as an integral part of **China Proper**. Its chief city, **Mukden** or **Shinyang** (170), lies a hundred miles north-east of the port of **Yin-kae**, on the Gulf of **Leaotong**. The chief town of the northern province is **Tsitsikar**, which lies on the banks of the **Nonni**, an affluent of the **Sungari**. The capital of the south-eastern province is **Kirin**, on the Upper **Sungari**.

**VII. COREA**, called by the natives *Ch'ao-hsien*, the "Land of the Morning Calm," is a peninsula which stretches southward from **Manchuria** between the **Yellow Sea** and the **Sea of Japan**. Its

1. This territory has an area of over 480,000 square miles, and a population of only 600,000, one-half of whom are nomads, was formerly known as *Chinese Tartary*, and was first conquered in 1762.

2. The area is estimated at 322,000 square miles (about six times that of England and Wales), and the population at 12 millions, consisting principally of Manchus in the north and centre, and Chinese in the south.



inhabitants are exceedingly jealous of intercourse with strangers, but the country is being gradually opened to Europeans.<sup>1</sup>

The physical characteristics of Corea are similar to those of Italy. The long range forming the backbone of the Corean peninsula, prolonged on the north into the lofty snow-clad range of the Shan Alin, is almost the counterpart of the Apennines and the Alps of Italy. There is this difference, however, that the Corean chain runs along the east coast and is continued due north to the great range on the north, whereas the Apennines bend to the west before uniting with the Alps. The east coast of Corea is high and rugged: the level tracts along the Yellow Sea are skirted with numerous islands, of which the largest is *Quelpart*. The interior is but little known. The forests are infested with *bears*, *tigers*, and other carnivora, and large numbers of *cattle* are reared. The most important plant-product is *gin-seng*, a root yielding an intoxicating drug. *Beans*, *cornhides*, and *gin-seng* are the chief articles of export; but *rice*, *willet*, *cotton*, and *tobacco* are also grown, and *gold*, *iron*, *lead*, and *coal* are worked in various parts of the country. The trade is chiefly with Japan, and, next in importance to that country, with Asiatic Russia and China. But the imports and exports at the three treaty ports—Jenchuan, Fusan, and Yuensan—do not exceed a million sterling a year.

Since the formation of the kingdom in 1392, the power of the Chinese Government over the country has declined, and although the king still sends tribute to the Emperor of China, he is practically independent. The form of government is an *absolute monarchy*, and the administration is based on that of China. The prevailing religion is *Buddhism*, the worship of ancestors is observed as in China, and *Confucianism* is held in high esteem by the upper classes.

The capital is *SEOUL* or *King-ki-tao* (220), in the interior of the peninsula, on the river Ya-lu. There is a Japanese colony at Fusan on the south coast, which is now a *free port*, as well as Jenchuan on the east coast, and Yuensan on the west coast.

### QUESTIONS ON THE CHINESE EMPIRE.

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| <ol style="list-style-type: none"> <li>1. Name the countries that are included within the Chinese Empire.</li> <li>2. How is China bounded? What is its extent?</li> <li>3. Name the principal inlets and straits.</li> <li>4. What two large islands lie off the coast of China?</li> <li>5. Where is Hong-Kong? What kind of island is it as to natural features? To what nation does it belong?</li> <li>6. What is the general aspect of China as to natural features?</li> <li>7. Describe the four chief rivers of China.</li> <li>8. By what characteristics is the climate of China distinguished?</li> <li>9. Among the natural productions of China, which ranks first in importance? State what you know concerning it.</li> <li>10. Mention some other of the natural productions of China, vegetable and mineral.</li> <li>11. To what number is the population of China supposed to amount? Is this number, relatively to the area of the two countries, greater or less than the ratio of population in England? What is the prevailing religion?</li> <li>12. Give some particulars respecting the industrial pursuits of the Chinese people.</li> <li>13. What constitutes the chief item in the foreign trade of China? What other articles do the Chinese export?</li> <li>14. What articles do the Chinese derive from the East Indian Archipelago?</li> </ol> | <ol style="list-style-type: none"> <li>15. What are the means of internal communication?</li> <li>16. What form of government prevails in China?</li> <li>17. Why do the Chinese call their country <i>Sa-hu-pa-Sheng</i>?</li> <li>18. Name the principal cities of China. Point out their places upon the map.</li> <li>19. Upon what river is Nankin? What other places are within the valley of the same stream?</li> <li>20. Where is Shanghai? What branch of trade is carried on there? Where is Canton? What British Colony is at the mouth of the Canton River?</li> <li>21. What kind of country is Tibet as to its physical features?</li> <li>22. Of what religion is Tibet the seat?</li> <li>23. Name the chief city of Tibet, and find out its place upon the map.</li> <li>24. What are the features of Mongolia? What desert does it include?</li> <li>25. By what habits of life are the Mongols distinguished?</li> <li>26. What do you know of Zungaria and Eastern Turkestan?</li> <li>27. Where is Manchuria? What river forms its northern limit?</li> <li>28. Where is Corea? Describe its chief physical features. By what are its inhabitants distinguished?</li> </ol> |
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1. The area is estimated at 86,000 square miles—nearly one-half that of England and Wales—and the population at 12 millions, an average of 192 to the square mile.

2. Port Hamilton, a position commanding the

entrance to the Sea of Japan, was occupied by England in 1884, but was restored to China on the understanding that no other power would be permitted to occupy any positions on the Corean coasts.

## ASIATIC RUSSIA.

The Asiatic division of the Russian Empire embraces more than a *third* of Asia—the largest of the continents—and nearly one-seventh of the total land-area of the globe. But this immense territory is very thinly peopled, the total population amounting to not more than 18 millions, an average of only 3 persons to the square mile.

Asiatic Russia includes three distinct divisions, namely:—Siberia, Russian Central Asia, and Caucasia.

## I. CAUCASIA.

This administrative division of the Russian Empire embraces the territory lying between the Black and Caspian Seas, and is divided into Cis-Caucasia, north, Trans-Caucasia, south, of the great chain of the Caucasus.<sup>1</sup>

**BOUNDARIES.**—Caucasia is bounded on the *north* by European Russia, on the *east* by the Caspian Sea, on the *south* by Persia and Asiatic Turkey, and on the *west* by the Black Sea.

**EXTENT.**—The entire province has an area of about 180,000 square miles, or 3 times that of England and Wales.

**NATURAL FEATURES.**—The greater part of the province is mountainous—the vast chain of the Caucasus extending right across it from the Black Sea to the shores of the Caspian.

The chain of the Caucasus rises above the snow-line, and its higher portions exceed 10,000 feet above the sea. Mount Elburz, which is the highest point of the chain, reaches upwards of 18,000 feet, which is a greater height than that of Mont Blanc. The only road practicable for carriages across the Caucasus attains, at the summit of the *Darrel Pass*, an elevation of 8,000 feet.

The country lying further south, towards the Persian and Turkish borders, includes part of the *Plateau of Armenia*. Mount Ararat, nearly 17,000 feet high, is within its limits, near the border-line of Persia and Turkey.

Cis-Caucasia is watered chiefly by the *Kuban* and *Terek*, and their tributaries. The *Kuban* flows west into the Black Sea, but the *Terek* has an eastwardly course into the Caspian. The *Kura* (the ancient *Cyrus*) and its tributary the *Aras* (the ancient *Araxes*) are the chief rivers of Trans-Caucasia. They both flow, by the single stream of the *Kura*, into the Caspian Sea. The large lake of *Gokcha* or *Sevan*, which is within Russian Armenia, is connected with the stream of the *Aras*.

**Climate.**—The climate, though temperate on the average, is yet one of great extremes. In the plains towards the Caspian the heats of summer are excessive, while the winter is one of prolonged and extreme severity. This is especially the case in the open plains of the Armenian plateau.

**Productions.**—The productions of the soil, and the apparently inexhaustible supply of *petroleum*, constitute the chief wealth of this territory. There are extensive forests, in which wild animals (among them the *boar* and the *antelope*) abound; and the watered valleys yield plentiful crops of *grain*, besides *fruits*. Both the *vine* and the *mulberry* flourish, and the *cotton-plant* thrives.

1. If we take the Caucasus range as being the boundary between Europe and Asia, then Cis-Caucasia is within the limits of Europe, while Trans-Caucasia is in Asia. But these two divisions are physically and politically so intimately connected, that it is better to consider them as one country.

**INHABITANTS.**—The inhabitants of Caucasia are about 7½ millions in number. They comprise people of various races and creeds, but the majority are Georgians and other people of what is called the Circassian stock.

The inhabitants of the Caucasus have been famed, in all ages, for their personal beauty, and they still preserve this reputation. The Georgian and Circassian girls, formerly sold as slaves in the markets of Constantinople, were derived from this region.

**Industries and Trade.**—*Agriculture* is pursued to a limited extent, but the vast petroleum industry and trade are by far the most important pursuits. The wells around the port of Baku, on the Caspian, afford apparently inexhaustible supplies of this useful commodity.

Much trade is also carried on with Russia by the magnificent military road from Tiflis to Vladikavkaz, through the *Dariel Pass*.

**DIVISIONS.**—Caucasia forms a single administrative "government" under a Lieutenant-General, responsible only to the Czar. Northern Caucasia or Cis-Caucasia is politically divided into the 3 "governments" of Kuban, Stavropol, and Terek. Southern Caucasia or Trans-Caucasia is divided into 7 "governments," namely, Baku, Daghestan, Elizabethpol, Erivan, Kars, Kutais, and Tiflis.<sup>1</sup>

**Towns.**—The chief town north of the Caucasus is VLADIKAVKAZ (34), the southern terminus of the Russian railway-system, and an important station at the head of the great military road which crosses the Caucasus by the Pass of Dariel, and joins the Baku-Batum Railway at Tiflis. The old capital of Cis-Caucasia, Stavropol (37), lies much further north, on the old route between Russia and Trans-Caucasia. TIFLIS (104), the capital of the whole territory, and by far the most important city in Caucasia, is on the River Kura, at the southern termination of the great military road across the Caucasus, and is connected by rail with Poti and Batum, the chief ports of Trans-Caucasia, on the Black Sea, and with Baku, on the Caspian. Another town of some importance is Erivan, situated within Russian Armenia, not far from the foot of Mount Ararat. North-west of Erivan is the strong fortress of Alexandropol.

## II. SIBERIA.

SIBERIA includes all the northern belt of the Asiatic continent, comprising the vast plain which slopes from the Altai Mountains to the Arctic Ocean. This immense region is bounded on the north by the Arctic Ocean; on the east, by the Pacific;<sup>2</sup> on the south, by the Chinese Empire and Russian Central Asia; and on the west, by Russia in Europe.

**EXTENT.**—The area of Siberia is officially estimated at 4,830,000 square miles, *i.e.*, 83 times the size of England and Wales.

The greatest length of Siberia, from Bering Strait to the Ural Mountains, is 4,000 miles; and the greatest breadth, from north to south, is about 2,000 miles.

1. During the Russo-Turkish war, Kars, Ardaban, and Batum were captured, and the surrounding territory was occupied by, and finally ceded to Russia by the Treaty of Berlin (1878). Kars, which has been besieged and taken by the Russians three times—in 1828, 1855, and 1877—is now the chief stronghold of Russia on the Turkish frontier.

2. Strictly speaking, with the exception of the south-eastern coasts of the peninsula of Kamchatka, no part of Siberia borders directly on the Pacific Ocean. On referring to the map, the student will find that the eastern coasts are washed by the Bering Sea, the Sea of Okhotsk, and the Sea of Japan.

**COASTS.**—The northern coasts of Siberia, though generally low, are deeply indented by several gulfs or rather estuaries, but their navigation is closed during the greater part of the year.<sup>1</sup> The eastern coasts are washed by three land-locked seas, Bering Sea, the Sea of Okhotsk, and the Sea of Japan,<sup>2</sup> all opening into the Pacific.

1. **Capes.**—The principal capes are North-East Cape or Cape Chelyuskin, the northernmost point of the Old World; East Cape, the most easterly point of Asia; and Cape Lopatka, the extreme south point of the peninsula of Kamtchatka.

2. **Inlets.**—The chief arms of the sea are the Gulfs of Obi and Yenisei, Taimyr Bay, and Khatanga Bay on the north, opening into the Arctic Ocean; and, opening directly or indirectly into the Pacific, are the Gulf of Anadir, a part of the Bering Sea; the Sea of Okhotsk, with the Gulfs of Penjinsk and Ghijinsk; and the Sea of Japan, with the Gulf of Tartary.

3. **Straits and Channels.**—The most notable channels and straits are Bering Strait, which divides Asia from North America, and is only about 35 miles wide; La Perouse Strait, between the islands of Saghalien and Yezo; and the Gulf, or rather Channel, of Tartary, between the island of Saghalien and the mainland.

4. **Islands.**—The most important islands are the *Liakhov Islands* or New Siberia, off the north coast of Siberia, famous for their fossil ivory; *De Long Islands*, further north, and *Wrangel Island*, further east; with the *Bear Islands*, off the mouth of the Kolyma. Off the eastern coast are *St. Lawrence Island* and *Bering Island*, in the Bering Sea; the *Aleutian Islands*; and the *Kurile Islands*, given to Japan in 1875 in exchange for the Japanese portion of the island of *Saghalien* or Sakhalin, a large island over 550 miles long, and from 15 to 80 miles broad.

**NATURAL FEATURES.**—Siberia is a vast lowland plain. The Altai Mountains form its southern border, and impart diversity of surface to the country which adjoins their base. Great level plains, or *steppes*, stretch out thence to the northward, and become more barren and desolate as they approach the shores of the Polar Sea. Towards the latter, they form a level waste<sup>3</sup> of ice and snow during the larger portion of the year, converted into a series of swamps and marshy lakes during the brief summer of these high latitudes.

The easterly division of Siberia is less generally level than its westerly portion. A high chain of mountains, several among which are active volcanoes, extends through the peninsula of Kamtchatka. The long range of the *Yablonoï* or *Stanovoi Mountains* forms the natural boundary between the coast territory and the Amur province and the government of Yakutsk. The central provinces of Siberia are divided from Mongolia by the *Altai Mountains*.

The three great rivers of northern Asia—Obi, Yenisei, and Lena—belong to Siberia. The rivers Irtish, Tobol, and Ishim are the chief tributaries of the Obi. The chief tributary of the Yenisei is the river *Angara*, which flows out of Lake Baikal,<sup>4</sup> the largest fresh-water lake of Asia.

1. The accomplishment of the *North-East Passage* by Nordenföld in 1878-79, in the "Vega," was expected to result in a limited maritime intercourse during the summer months between Siberia and Europe.

2. These seas are separated from the ocean by chains of islands: Bering Sea by the Aleutian Islands; the Sea of Okhotsk by the Kurile Islands; and the Sea of Japan by the Japan Islands. But they are not true inland seas, like

the Mediterranean or the Baltic. They are generally shallow, but, contrary to the general law of depth, the coasts are on the whole lofty, except at the mouths of the larger rivers.

3. The "Tundra."

4. Lake Baikal is nearly 400 miles in length, and has an area of about 13,000 square miles. In winter it is frozen over, but in summer it is regularly navigated by numerous steamers.

Each of the three great rivers of Siberia has a course of between two and three thousand miles before its waters reach the ocean, but the high latitudes through which they flow prevent their being much navigated, excepting in their upper portions. Many of their tributaries, however, which run in a direction transverse to that of the main streams (*i.e.*, east or west), are extensively used as channels of intercourse.

**CLIMATE.**—The climate of Northern Siberia is intensely cold, and it is only in the south that a moderate temperature is experienced. The extreme north, towards the shores of the Arctic Ocean, exceeds any other region on the globe in the intense severity of its winter, which is prolonged through nearly ten months of the year.

**PRODUCTIONS.**—Siberia, however, has natural productions of great value. These are of two kinds, belonging to distinct divisions of the natural world—metals and furs.

1. The former occur in the neighbourhood of the Ural and the Altai Mountains, in both of which localities *gold* is worked to a considerable extent. Mines of *silver* and *lead* are also worked in the Altai region, to the east of Lake Baikal. *Iron*, *copper*, and many other metallic and mineral productions, as well as valuable masses of *porphyry* and other *marbles*, are also supplied by Siberia. *Malachite*, which is a carbonate of copper, is extensively derived thence.

2. The other source of wealth is found in the variety and abundance of animals furnished by nature with warm coats of fur, to enable them to withstand the cold of a Siberian climate. Among these are the *sable*, *otter*, *mink*, *ermine*, *fox*, and many others; but their numbers have materially diminished under the pursuit of the Russian hunters.

**INHABITANTS.**—Siberia, although it embraces nearly one-third of Asia, has a population of less than 5 millions, an average of only 1 person per square mile. A large proportion of the inhabitants of Siberia are exiles from European Russia and their descendants.

The rest are *Kirghiz*, in the south-west; *Kalmucks* and other tribes along the borders of the Altai Mountains; the *Tungus*, east of the Yenisei; *Ostiaks* and other Tartar-Finnish tribes in the west and north-west; and the *Samoyedes*, along the shores of the Arctic Ocean. The native tribes of Siberia are for the most part idolaters. Those dwelling in the eastern parts of the country exhibit a low and barbarous condition of life, and subsist by hunting and fishing. The people of Kamchatka are of short stature; they have few settled habitations, and are remarkable for the extent to which they use the dog for the purpose of draught, as we do the horse.

**INDUSTRIES.**—By far the larger portion of Siberia is too cold and dreary to be fitted for permanent habitation, but there are fertile and cultivated tracts in the south, towards the mountain region of the Altai and the shores of Lake Baikal.

The European inhabitants, most of whom are exiles from European Russia, are engaged in *mining*, *agriculture*, and *trade*. Many of the native tribes of Siberia are famous hunters and fishers.

An extensive overland trade, by *caravans*, *steamers*, and *barges* in summer, and by *sledges* in winter, is carried on through Siberia between Russia and China. Tea and other products of China are thus brought, by a long land-journey (with the frequent aid of river navigation), into Eastern Europe. The Russian and Chinese traders meet at *Kiakhta*, to the south of Lake Baikal, on the frontier line of the two empires. Opposite Kiakhta is the Chinese frontier town of *Maimachin*.

**DIVISIONS.**—Siberia is divided by the River Yenisei into two great divisions—*Western Siberia* and *Eastern Siberia*.

**Western Siberia**, which has an area of 870,000 square miles (nearly 10 times the area of the British Isles), but a population of little more than 2½ millions, is divided into the two 'governments' of **Tobolsk** and **Tomsk**.

The 'government' of Tobolsk contains the towns of *Tobolsk*, *Omsk*, *Tyumen*, and *Miask*. **TOBOLSK** (20), a fine old town on a high bluff at the junction of the Tobol and the Irtish, was for centuries the capital of Asiatic Russia. **OMSK** (38), the largest town in Western Siberia, is an important commercial centre, at the junction of the Om and the Irtish. **TOMSK** (37), which lies on the river Tom, near its junction with the Obi, is a centre of considerable trade on the caravan route, or *trakt*, as the great trunk line from Perm to Kiakhta is called.

**Eastern Siberia** includes the 'governments' of **Yeniseisk**, **Irkutsk**, **Transbaikalia**, and **Yakutsk**, which together have an area of 3 million square miles, and a sparse population of a little over 1½ millions.

The little town of **Yeniseisk**, on the Yenisei, was formerly the capital, but the seat of government is now the mining town of **KRASNOIARSK**, on the Upper Yenisei. **IRKUTSK** (48), on the Angara, the outlet of Lake Baikal, is the largest town in Siberia, and has important manufactures, and carries on a great trade with China through **Kiakhta**. **YAKUTSK**, on the Lena, is the commercial emporium of Eastern Siberia.

There are several small towns in the Amur region, which includes the provinces of the **Amur** and **Primorskaya**. The large island of **Saghalien** (Sakhalin) was separated from the Primorsk Province and placed under a separate governor in 1889.

**Blagoveschenk**, on the northern bank of the Lower Amur, is the capital of the Amur Province. The chief towns in the Coast Territory are, the fortified port of **Nikolalevsk**, at the mouth of the Amur; **KHABAROVKA**, the seat of government, at the junction of the Amur and the Ussuri; and the strongly fortified port of **VLADIVOSTOK**, the chief naval station of Russia in the Pacific.

### III. RUSSIAN CENTRAL ASIA.

This division of Asiatic Russia includes the whole of the vast region which extends from Western Siberia on the north, to the borders of Afghanistan and Persia on the south, and is bounded on the west by the Caspian Sea, and on the east by Eastern Turkestan and Western Mongolia.

The total area of this immense territory is considerably over 1½ million square miles (or nearly 26 times the area of England and Wales), but with the exception of a few fertile oases and productive valleys, the entire region is very thinly peopled.

**NATURAL FEATURES.**—This region includes the great **Kirghiz Steppe** in the north, and the sterile **Ust-Urt Plateau**, between the Sea of Aral and the Caspian, the deserts of the **Kara Kum** and **Kizil Kum** to the east of the Sea of Aral, and the mountainous districts in the east and south-east, bordering on the **Altai** and the **Tian-Shan Mountains**, and rising in the lofty **Pamir Plateau** to an elevation of between 15,000 and 20,000 feet. The chief rivers are the **Amu-Daria** or **Oxus**, and the **Syr-Daria** or **Jaxartes**; and the largest lakes are **Lake Balkash** and the **Sea of Aral**.

The northern portion of this region is watered by the *Irtish*, *Ishim*, and other tributaries of the *Obi*; the eastern districts by the *III*, *Lepsa*, and other rivers which enter *Lake Balkash*; and the southern by the *Amu-Daria* and *Syr-Daria* (the ancient *Oxus* and *Jaxartes*), both of which enter the *Sea of Aral*.

The *Sea of Aral* is about 350 miles in length, and has an area of 35,000 square miles. It is shallow, especially on the east and south, and its navigation is still further impeded by numerous islands. *Lake Balkash* is an irregular sheet of water, and, although it receives many large rivers, its waters are intensely salt.

The climate is one of great extremes, being very hot in summer and intensely cold in winter.

The immense herds of cattle reared on the *Steppes* constitute the chief wealth of the nomadic Kirghiz tribes. The oases around *Khiva*, *Samarkand*, and other towns, and some of the valleys in the south-east, are well watered and fertile, and yield abundant harvests of *grain* and *fruit*, but a great part of Russian Central Asia is absolutely unproductive. The *Sea of Aral* is surrounded by sterile deserts—the *Kara Kum* and *Kizil Kum* on the north and east, and the desert Plateau of *Ust-Urt* on the west.

**INHABITANTS.**—Most parts of Russian Central Asia are thinly peopled, and the entire region only contains 5½ millions of inhabitants.

This region is largely peopled by nomadic tribes of Kirghiz and Turkomans, who roam with their herds over the steppes. But they are becoming more accustomed to occupy fixed places of abode and to cultivate the soil, and in the valleys and along the banks of the rivers there is a fixed population industriously engaged in agriculture and domestic manufactures and trade. Millions of *sheep* and *goats* are reared, and *horses*, *camels*, and *cattle* are numerous.

**DIVISIONS.**—Russian Central Asia includes two of the five General Governments into which the Asiatic part of the Empire is divided.

The "General Government" of *Stepnoye*, or the *Steppe* region, is divided into 4 provinces or governments, which are named after the chief town in each. These towns are *Uralsk*, on the *River Ural*; *Turgai*, in the plain north of the *Sea of Aral*; *Akmolinsk*, on the *Upper Ishim*; and *Semipalatinsk*, on the *Upper Irtish*.

The "General Government" of *Turkestan* includes the provinces of *Semiratchensk*, *Ferghana*, and *Zarafshan* or *Samarkand* (which lie between *Lake Balkash* and *Bokhara*), and also the districts of *Syr-Daria* and *Amu-Daria* to the east, and the *Trans-Caspian Territory* to the west, of the now dependent khanates of *Khiva* and *Bokhara*. The political and commercial capital of the whole of Russian Central Asia is **TASHKEND**, which is situated in a beautiful and fertile oasis, watered by the *Bossu*, a tributary of the *Syr-Daria*. *Samarkand*, in the fertile valley of the *Zarafshan*, is the present terminus of the *Trans-Caspian Railway*. *Kokand*, in the valley of the *Syr-Daria*, was the capital of the old khanate of *Kokand*, and is still an important centre of trade.

The khanates of *Khiva* and *Bokhara*, the former to the west of the *Lower Amu*, and the latter to the north of the same river, which also forms the boundary between the two States, are both under the suzerainty of *Russia*.

**KHIVA.**—The *Khanate of Khiva*, which became a *Russian vassal State* in 1873, is bounded by the *Amu* on the east; the *Sea of Aral* on the north, and the *Trans-Caspian Territory* on the west and south.

The territory still nominally governed by the Khan has an area of about 22,000 square miles and a population of about three-quarters of a million, consisting mainly of *Uzbeks*, a race of Turkish origin. *Cereals* and *fruits* are largely grown, and about 50 tons of *raw silk* and 8,000 tons of *raw cotton* are annually produced. The capital, **KHIVA**, has a population of about 6,000.

**BOKHARA.**—The Khanate of Bokhara, also a Russian vassal State since the capture of Samarkand in 1868, is much larger and more populous than that of Khiva, its total area being about 92,000 square miles (nearly twice the size of England), while its population numbers about 2½ millions.

The cultivable lands are limited to the irrigated strips along the *Zarafshan* and the *Amu* and the lower mountain valleys of the eastern division of the country. The productions include *corn* and *fruit*, *silk* and *cotton*, *wine* and *tobacco*. There is a considerable trade with *Russia*, *Persia*, *Afghanistan* and *India*, the *imports* being valued at about 16 million roubles, and the *exports* at 15 million roubles.<sup>1</sup>

The Amir, educated in Russia, is practically a Russian Governor. He has an army of 20,000 men, but can do nothing without the sanction of the Russian Political Agent, nor can he allow a foreigner to enter the country without a Russian passport. The capital, **BOKHARA** (100), lies within the fertile valley of the *Zarafshan*, and is only a few miles from the *Trans-Caspian Railway*, which crosses the *Amu* into Bokhara, at *Charju*, and passes up the *Zarafshan* valley to Samarkand.

#### QUESTIONS ON ASIATIC RUSSIA.

1. The Asiatic division of the Russian Empire embraces three distinct territories: give their names and point to each upon the map.
2. What kind of country is *Caucasia* as to natural features? What famous mountain is within the limits of Russian *Armenia*?
3. Name the principal rivers of this region.
4. What lake lies within *Trans-Caucasia*?
5. Describe the climate and productions of *Caucasia*.
6. To what race of people do the majority of the people belong? By what circumstance have they been in all ages distinguished?
7. What is the most important industry in *Caucasia*? What is the chief city of *Caucasia*, and on what river does this stand?
8. Where are *Vladikavkas*, *Kars*, *Potsi*, *Batum*, *Stavropol*, and *Erivan*?
9. How is *Siberia* bounded? What range of mountains divides it from *Russia* in *Europe*? What from the *Chinese Empire*?
10. What gulfs are on the north coasts of *Siberia*? What seas and inlets on its eastern side?
11. What strait adjoins the eastern extremity of *Siberia*? What two continents does this strait separate?
12. Name the principal islands along the coasts, and briefly describe the natural features, of *Siberia*.
13. Name the three great rivers of *Siberia*.
14. What kind of climate has *Siberia*?
15. What natural productions of value belong to *Siberia*?
16. For what purpose is *Siberia*, used by the *Russian government*? What are the chief pursuits of the native tribes?
17. At what place, on the *Siberian* and *Chinese* frontier-line, is commercial intercourse maintained between the *Russians* and the *Chinese*? What article do the *Russian* traders obtain from *China*?
18. Name the principal divisions of *Siberia*. What is the chief town of each?
19. On what rivers are *Tobolsk*, *Omak*, *Tomak*, *Krasnoyarsk*, *Irkutsk*, and *Yakutsk*?
20. Where is *Vladivostok*? Point out its place on the map.
21. What are the boundaries of *Russian Central Asia*?
22. Briefly describe the chief natural features, climate, and productions of this region.
23. What are the political divisions?
24. State what you know of the Khanates of *Khiva* and *Bokhara*.



## THE EAST INDIAN ARCHIPELAGO.

THE EAST INDIAN OF MALAY ARCHIPELAGO is an insular region of vast extent to the south-eastward of the Asiatic continent, and enclosed by the Pacific Ocean, the China Sea, and the Indian Ocean.

Of the islands included within this region, the largest is **Borneo**, the second in size is **Sumatra**, the third in this respect is **Celebes**, and the fourth is **Java**; next in order of magnitude are the **Philippines** and the **Moluccas** or **Spice Islands**. The *western half* of the island of **New Guinea** is sometimes regarded as a part of the East Indian Archipelago.

The various islands embraced in this region are divided by numberless seas and channels, among which are the following:—The **Java Sea**, the **Celebes Sea**, the **Banda Sea**, the **Flores Sea**, and the **Sulu Sea**, while the **Timor Sea** and the **Arafura Sea** separate them from Australia.

The *Straits of Malacca* and *Sunda* form the two great channels of entrance to this region from the westward. The **Strait of Malacca** divides the island of Sumatra from the Malay Peninsula; the **Strait of Sunda** intervenes between the islands of Sumatra and Java; the **Strait of Macassar** lies between the islands of Celebes and Borneo.

Nearly all ships that proceed from the ports of Europe to the coasts of China, or to any of the islands of the Archipelago, pass through one or other of these channels. English vessels—whether direct from England or from the ports of India—nearly always use the Strait of Malacca, along the shores of which are situated the British settlements of Penang, Malacca, Singapore, and the Protected Malay States. Dutch vessels, on the other hand, adopt the Strait of Sunda, which adjoins the possessions of Holland—the islands of Sumatra, Java, &c.—in this part of the globe.

**CLIMATE.**—The climate of the East Indian Archipelago is hot, but the generally intense heat of the Torrid Zone is here moderated by the influence of the surrounding seas. The temperature is, consequently, not so high as upon many parts of the Asiatic mainland. The air is mostly healthy, excepting in low and marshy districts. Rain falls copiously at particular seasons, and is dependent upon the change of the monsoon.

**PRODUCTIONS.**—The natural productions of this region are rich in the extreme.

**Gold, tin, and precious stones** in the mineral kingdom, with rich fruits and spices in the vegetable world, distinguish these fertile and beautiful islands of the Eastern seas. Both **gold** and **diamonds** are among the productions of Borneo. There are about 400 productive **tin mines** in the islands of Banca and Billiton, and other metals and minerals are known to exist. But the grains, aromatic plants, and valuable woods, with many curious vegetable productions of the different islands, are of greater commercial value.

The tree which yields **guttapercha** is a native of Borneo and some other of the islands. The **nutmeg** and the **clove** belong to the smaller islands of the Moluccas, or the Spice Islands, as they were, from this circumstance, formerly called. **Sago** is the produce of the islands in the more easterly division of the Archipelago. **Sugar, tobacco, tea, coffee,** and **rice** are also largely grown and exported.

**INHABITANTS.**—The entire *population* of the Malay Archipelago is probably not less than 40 millions. The island of Java alone has over 20 million inhabitants, and the Philippine Islands contain upwards of 7 millions.

The native races throughout the archipelago are in a state of semi-barbarism. The Malays are the ruling people, except in those islands where European supremacy is established; in most of the islands there are various Negroid or Papuan races, some of whom exhibit a very low condition of savage life. The Malays are skilful navigators and active traders. Piracy upon a scale of great extent was also formerly carried on, when their long war-canoes were the terror of the archipelago. A vast number of Chinese are found settled in various parts of this region.

**Commerce.**—The East Indian Archipelago is the theatre of an active commerce. The English, Dutch, Americans, and Chinese are most extensively engaged in this trade. *Spices, gutta-serpcha, coffee, indigo, sugar, cigars, and tortoise-shell* are among the productions exported to Europe and America, and *edible birds' nests and trepang* to China.

*Edible birds' nests* and the substance called *trepang* are among the articles in demand among the Chinese. The former of these are the nests of a species of swallow, the material composing which is cemented by a viscous kind of substance—the produce of the bird itself; the latter (called also *bêche de mer* or sea-slug) is a gelatinous mass of living matter, belonging to the order of radiated animals, and found adhering to the rocks in certain parts of the East Indian Archipelago. Both are articles of luxury to the Chinese epicure.

**DIVISIONS.**—More than three-fourths of the East Indian Archipelago belong to Holland, the rest to Spain and Great Britain, with the exception of a part of the island of Timor, which belongs to Portugal.

**I. THE DUTCH EAST INDIES** include all the Larger Sunda Islands (with the exception of a part of Borneo), all the Smaller Sunda Islands (except the eastern part of Timor), and the Moluccas.

*The Larger Sunda Islands* are Sumatra, Java, Borneo, and Celebes.

*The Smaller Sunda Islands* include the long chain to the eastward of Java. The largest are Bali, Lombok, Sumbawa, Flores, Sumba or Sandalwood, and Timor, with North and South Timor Laut, &c.

*The Moluccas or Spices Islands* include the islands of Gilolo, Ternate, Ceram, Amboyna, Buru, the Banda Islands, &c.

*Western New Guinea* is also included in the Dutch East Indies.

The total area of the Dutch East Indies is 720,000 square miles, or nearly 13 times the size of England and Wales. The population is over 30 millions, two-thirds of whom live in Java—the most populous and valuable of the Colonial possessions of Holland.

**JAVA** is about 50,000 square miles in area, that is, not much less than the size of England. A chain of lofty volcanoes runs through the whole length of the island, many of them having an elevation of over 10,000 feet. Java is probably the very finest and most interesting tropical island in the world, and undoubtedly the most fertile, the most productive, and the most populous within the Tropics.

The chief port, **BATAVIA** (250), is also the political capital of all the Dutch East Indies; **SOERABAYA** (128), and **SAMARANG** (72), both on the north coast of the island, are other important centres of foreign trade. **SOERAKERTA** is a large city in the interior.

**SUMATRA** has an area of nearly 150,000 square miles, which is three times the size of England. A chain of high mountains runs along its western coast, rising in *Mount Indrapura* to 12,000 feet in height. Off its south-eastern shores are the islands of *Banca* and *Billiten*, famous for their rich *tin mines*. The coast districts are under the rule of the Dutch. **PADANG**, the capital, and **BENCŒOLEN**, the chief port, are both on the western coast. There are also several Native States, one of the principal of which is *Acheen*, near its northern extremity.

**BORNEO**, the fourth largest island in the world, is about 800 miles in length, and 600 miles in width, and has an area of about 230,000 square miles, or nearly five times the size of England. The interior, of which but little is known, appears to be mountainous,<sup>1</sup> and hundreds of large rivers and streams descend from the interior uplands, and wind through immense alluvial plains and valleys to the sea. Fully three-fifths of Borneo belong to the Dutch, whose authority, however, scarcely extends beyond the coast districts, which are governed by the Dutch Residents at **BANJARMASSIN** on the south coast, and at **PONTIANAK** on the west coast.

**CELEBES**, which has an area of 72,000 square miles (about 10 times the size of Wales), is an irregular "starfish-shaped" island, with four mountainous peninsulas. The island is politically divided into two *Residencies*, *Macassar* and *Menado*, of which that of *Macassar*, in the southern peninsula, is the most important. The town of **MACASSAR** or *Mangkassar*, is the centre of the trade of Celebes, which is carried on chiefly with Java and Singapore.

The **MOLUCCAS**, or *Spice Islands*, lie to the eastward of Celebes. The largest islands in the Molucca group are *Gilolo*, *Ceram*, and *Buru*, but the most noted is the small island of *Ambogna*, which is the seat of extensive commerce in cloves and other spices. The *Banda Islands* are famous for their nutmeg trees, but they are subject to destructive earthquakes and volcanic eruptions.

The *Smaller Sunda Islands*—*Bali*, *Lombok*, *Sumbawa*, *Flores*, *Sandalwood*, and *Timor*—are, like the larger islands, mountainous and volcanic, but they are deficient in verdure, and often absolutely barren. Only the western part of *Timor* belongs to the Dutch—the eastern half is still retained by Portugal.

**DUTCH NEW GUINEA** includes the whole of the main island west of 141° E. long., with the adjacent *Frederick Henry Island*, the *Aru*, and *Ki Islands* off the south-west coast, and *Jappen* and other islands at the mouth of *Geelvink Bay* on the north.

**II. BRITISH EAST INDIES.**—The richest portion of Borneo and the little island of *Labuan* belong to Great Britain. *Labuan* is a *Crown Colony*, and the territory of the *British North Borneo Company*, and the *Sultanate of Brunei*, and the province of *Sarawak*, are *British Protectorates*.

**LABUAN** has an area of 30 square miles, and a population of about 6,000, mostly Malays, with some Chinese traders and a few Europeans. The annual production of coal is now only about 8,000 tons. The capital, *Victoria*, has a splendid harbour.

**BRITISH NORTH BORNEO** includes the northern part of the island, and has an area of 31,000 square miles, a coast-line of nearly 1,000 miles, and a population of about 175,000. The Company's territory, which has been placed under British protection, is described as a magnificent country, possessing the only good harbours in the whole of Borneo, with a salubrious climate, and forming, in a mineral and agricultural point of view, the richest portion of Borneo. *Sandakan* (?), the capital, on the north coast of the island, has an excellent natural harbour.

1. *Mount Kinabalu*, in British North Borneo, is 13,700 feet in height.

**BRUNEL**, or Borneo, is a Native State under British Protection, on the north-west coast of Borneo. The capital, **Brunei** (15), is situated at the mouth of a navigable river.

**SARAWAK** is a large territory, also under British Protection, to the south-west of Brunei, with an area of fully 45,000 square miles, but the population scarcely numbers 300,000. It was acquired from the Sultan of Brunei by the late Sir James Brooke in 1841, and the present Rajah is his nephew. The capital is **Ku-Ching** (Sarawak), a busy port on the extreme south-western coast.

**III.—THE SPANISH EAST INDIES** include the Philippine Islands and the Sulu Archipelago.

The **PHILIPPINE ISLANDS**<sup>1</sup> form the most northerly portion of the East Indian Archipelago, and constitute one of the most important possessions of Spain. The largest island of the group is **Luzon**, which is nearly equal to England and Wales in point of size. **Mindanao** is next in magnitude. There are, altogether, over 1,000 islands and islets. The total area is over 114,000 square miles (more than twice the size of England), and the population about 7 millions.

All the islands of the Philippine group are mountainous; they also contain numerous rivers, and are throughout well watered, fertile, and productive. *Tobacco, sugar, and rice* are largely grown and exported. The chief city, **MANILLA** (270), situated on the western coast of Luzon, is the seat of an extensive trade in *hemp, sugar, coffee, tobacco, and cigars*.

The **SULU ARCHIPELAGO** includes all the islands lying between Mindanao and Borneo, and the native Sultan is under the "protection" of the Spanish Governor-General at Manila.

## J A P A N.

**JAPAN**, the "Britain" of the Pacific, is situated to the eastward of the Asiatic continent, from which it is separated by the Sea of Japan. This ancient Empire consists of an extensive chain of islands, the largest of which is **Nippon**<sup>2</sup> or *Honsiu*. **Kiusiu** and **Sikoku**, to the south of Nippon, and **Yezo**, to the north of that island, are the other principal islands. The **Kuriles** or *Tsi-Sima*, the **Loo-Choo** or **Liukiu**, and the **Bonin Islands** also belong to Japan. The total area of the Japanese Empire is 147,500 square miles—about 3 times the size of England.

**COASTS.**—Of great extent and indented with magnificent natural harbours, such as the **Bay of Tokio** and the **Gulf of Osaka**.

Of the various straits and channels the principal are:—**La Perouse Strait**, between Yezo and Saghalien; **Tsugaru** or **Sangar Strait**, between Yezo and Nippon; and the **Strait of Corea**, between Kiusiu and the Korean coast. The famous **Inland Sea** of Japan, a wondrously beautiful channel between Nippon and the islands of Sikoku and Kiusiu, communicates on the east with the Pacific by two openings—the **Bungo Channel** and the **Kino Channel**—and with the Strait of Corea on the west by a narrow opening.

**NATURAL FEATURES.**—All the islands are mountainous; the principal ranges in each extend generally parallel to the eastern coasts. Several of the higher mountains are volcanoes. Fertile plains and

1. The Philippine Islands were discovered in 1521 by Magellan, who was killed by the natives on the island of *Zebu*.

2. The name Nippon means the "Land of the Sunrise." Kiusiu "the nine Provinces," and Sikoku "the four States."

valleys, watered by numerous rivers, extend between the mountains and the sea.

The general height of the Japanese mountains is from 3,000 to 8,000 feet, but the extinct volcano of *Fusi Yama*,<sup>1</sup> about 60 miles from Tôkiô, in the island of Nippon, attains an elevation of 12,370 feet. In the centre of the same island is the active volcano of *Asama Yama*. There are several other active volcanoes, and severe earthquakes are frequent.\*

**Climate.**—The climate of Japan is temperate and healthy—perhaps not differing materially from that of Great Britain, except in its greater extremes of heat and cold at particular seasons.

**Productions.**—Among its productions are included, in the mineral kingdom of nature, *gold, silver, iron, copper, and tin*; and, in the vegetable world, trees that yield valuable *gums and resins*, with the *tea-plant* and the *mulberry*. The last is extensively used as the food of the silkworm.

**INHABITANTS.**—The country bears in general the appearance of populousness, and many of the cities are of large size. The total population is now considerably over 40 millions, an average of over 270 to the square mile, about one-half the density in England.

**Religion and Education.**—The people are mostly *Buddhists*, but the ancient religion of the country was *Shintoism*, or sun-worship. The higher classes generally profess *Confucianism*. Elementary Education is compulsory, and both elementary and higher schools are supported by Government Grants and local rates. There are several Normal Schools for teachers, and one University.

**INDUSTRIES.**—The Japanese are an extremely ingenious and a most industrious people, and have within recent years made marvellous progress in civilization and in the adoption of European arts and appliances.

The industry and ingenuity of the Japanese people are displayed in the careful culture of the land, the good roads which connect the various towns and villages, their skillful manufacture of silk, cotton, porcelain, and japanned wares. The country is so mountainous that not more than one-sixth of its area is available for cultivation, but the cultivable area is very productive, and *rice, wheat* and other cereals, *cotton, tobacco, the tea-plant*, and the *mulberry* are extensively grown. The art of covering metals with varnish (*japanning*) derives its popular appellation from this country. Their porcelain displays much skill, and possesses a beauty of its own peculiar kind.

The internal trade of the country is mainly carried on by sea, but there are now over 1,200 miles of railway open for traffic, and about 1,000 miles projected or in course of construction. There are 5,000 miles of State roads, and 16,500 miles of provincial roads. There is also an efficient postal and telegraphic service.

The foreign trade of Japan is carried on entirely through the open ports of *Yokohama, Kobé, Osaka, Nagasaki, Hakodate, and Niigata*, and is chiefly with *Great Britain, North America, China, and France*. Value in 1890, imports, over 81½ million yen; exports, over 55½ million yen<sup>2</sup>—a total turnover of over 137 million yen, or nearly 23 millions sterling.

**GOVERNMENT.**—The Government of Japan, formerly an absolute despotism under feudal forms, is now a constitutional monarchy, the Emperor, a wise and enlightened ruler, having enfranchised the people and substituted constitutional government for monarchical absolutism. The First National Parliament of Japan met for the first time in the autumn of 1890, at Tôkiô.

1. *Fusi Yama*, the "sacred mountain." A Japanese legend says that this mountain was suddenly thrown up in the third century before our era.

2. In October, 1891, a terrible earthquake devast-

tated the Gifu district, near Lake Biwa, in Nippon, and was more or less felt over three-fifths of the country.

3. The nominal value of the yen or dollar is about 4s. : the actual value is 3s. 4d.

Previous to the war of 1868, the supreme power was nominally divided between the *Mikado*, or the spiritual ruler, and the *Tycoon*, or temporal ruler. Many of the feudal princes—*Daimios*—were virtually independent, and maintained large bodies of troops. In that year, however, the hereditary emperor overthrew the power of the Tycoon and Daimios, and became absolutely the Sovereign of the State. Under the Constitution promulgated in 1889, the Emperor exercises the whole of the Executive powers, and can declare war, make peace, and conclude treaties. He exercises the Legislative power with the consent of the *Imperial Diet*, which consists of a House of Peers and a House of Representatives, and no law can be made without their consent.

The Revenue and Expenditure of the empire each amount to about 1½ millions sterling, and there is a Public Debt of over 60 millions.

The Imperial Army, recruited by conscription, is under the supreme command of the Emperor, and numbers 79,000 men on a peace footing, and 245,000 in war-time. The Japanese Navy consists of 25 war-vessels, many of which were built in England, and 25 torpedo-boats. Some of the gun-boats and other vessels have also been built in the Japanese dockyard at Yokosuka, and the fleet is now entirely officered and manned by Japanese.

**DIVISIONS and TOWNS.**—Japan is divided for administrative purposes into 46 Provinces or Prefectures, each under a Governor appointed by the Emperor. The largest towns are Tókió (1,400), Osaka (476), Kioto (280), Nagoya (163), Yokohama or Kanagawa (122), and Kobé (136). There are 11 other towns with above 50,000 inhabitants, and 14 towns with a population of from 30,000 to 50,000. There are altogether 12,000 towns and nearly 60,000 villages.

The capital of Japan is TOKIO (1,400), formerly called Jedo or Yedo, situated on the south-eastern coast of Nippon, at the head of a fine bay. Tókió was long supposed to be the most populous city in the world. Yokohama or Kanagawa, a modern town, several miles nearer the sea, forms its port, and has become the chief emporium of the foreign trade. Kioto, formerly called Miako, on the same island further to the west, is a large city, and, until 1869, had been the Imperial capital for over a thousand years. Osaka, south of Kioto, is, after Yokohama, the most important of the "open ports." Hakodate, and Matsumai, on the southern coast of the island of Yezo, are commercial towns of considerable importance.

#### QUESTIONS ON THE EAST INDIAN ARCHIPELAGO AND JAPAN.

1. Where is the East Indian Archipelago situated? Which of its islands is the largest? Which second and third in point of size?
2. Name some of the seas and channels that divide the various islands of this region.
3. What two straits form the principal channels of entrance to the archipelago from the side of the Indian Ocean?
4. What kind of climate has the archipelago?
5. Mention some of the natural productions of this part of the globe.
6. What race (among the native inhabitants) are the ruling people in the archipelago? What are their habits and occupation?
7. In what articles does the trade of the archipelago chiefly consist? What nations are the most active agents in this trade?
8. What portions of the East Indian Archipelago belong respectively to the Dutch, the Spaniards, and the English?
9. Point to the island of Borneo on the map. How large is this island as compared with England? What is known with respect to its natural features?
10. In what part of Borneo is Sarawak? Under whose rule is it? Of what part of the coast is Labuan Island? What do you know of British North Borneo?
11. Point to Sumatra. In which part of this island are the principal Dutch settlements?
12. Point to Java, and say what you know concerning its natural features. Name the chief city of this island.
13. Where are the island of Celebes and the group of the Moluccas? Which, among the smaller islands of the Molucca group, is most important as a seat of commerce?
14. Where are the Philippine Islands? Name the largest island of the group, and point out its place upon the map. What is its chief town called?
15. In what part of Asia are the islands of Japan? What are the names of the largest islands of the group?
16. What proportion does their magnitude bear, as a whole, to that of England?
17. Describe briefly the natural features of Japan.
18. Say what you know concerning the climate and productions of Japan.
19. Mention some particulars respecting the industry of the Japanese people. For what branches of manufacture are they distinguished?
20. Under what kind of government is Japan? What is the prevailing religion?
21. How is Japan divided? What city is the capital?
22. On what islands are the towns of Yokohama, Kioto, Osaka, Nagoya, Hakodate, and Matsumai? Point them out on the map.

## A F R I C A.

**AFRICA**<sup>1</sup> is the south-western portion of the Old World, and is the only one of its three continents that stretches to the southward of the equator. By much the larger portion of its surface, however, falls within the northern hemisphere. Regarding it as a whole, this continent forms a vast peninsula, connected with the Asiatic continent by the Isthmus of Suez.

**BOUNDARIES.**—Africa is bounded on the *north* by the Mediterranean Sea; on the *west*, by the Atlantic Ocean; on the *east*, by the Red Sea and the Indian Ocean; on the *south*, by the Southern Ocean, a name which is given to the southwardly belt of water in which the Atlantic and Indian Oceans mingle.

**EXTENT.**—In point of size, Africa is more than three times larger than Europe, but nearly one-third smaller than the Asiatic continent. Its *area* is equal to about 12,000,000 square miles.

The *extreme points* of the continent are *Cape Blanco* (37° 21' north), on the north; *Cape Agulhas* (34° 56' south), on the south; *Cape Verde* (17° 40' west), on the west; and *Cape Guardafui* (51° 10' east), on the east. The distances between these points, that is, the greatest length and breadth of Africa, are 5,000 and 4,850 miles respectively.

**COASTS.**—One of the chief things to be noticed about Africa is its solid, unbroken shape, and the general regularity of its coast-line. The sea nowhere penetrates any considerable distance towards the interior, and the vast bulk of the continent is quite unaffected by its influence. Africa has therefore few gulfs or inlets of any extent.

The total length of the coast-line of Africa is estimated at 18,000 miles, or an average of 1 mile of coast to every 750 square miles. Contrasting this proportion with that of the other continents, we find that Europe has nearly four times; Australia, three and a half times; North America, twice; and Asia, one and a half times, the extent of coast-line in proportion to area as Africa.

1. **Capes.**—The most important capes are Bon, Blanco,<sup>2</sup> Ceuta, and Spartel, on the *north*; Bojador,<sup>3</sup> Blanco, Verde,<sup>4</sup> Palmas, Lopez, and Frio, on the *west*; Good Hope,<sup>5</sup> and Agulhas,<sup>6</sup> on the *south*; and Corrientes,<sup>7</sup> San Sebastian, Delgado, and Guardafui, on the *east*.

*Cape Bon* makes near approach to the island of Sicily; *Cape Blanco*, on the Mediterranean coast, is the most *northerly* point of the African continent. There is another *Cape Blanco*, a famous headland, on the western side of Africa. *Cape Verde* is the most *westerly* point of Africa; *Cape Guardafui* is the most *easterly*; and *Cape Agulhas* is the most *southerly*.

2. **Inlets.**—The principal inlets along the African coast are the Gulfs of Sidra and Kabes on the *north*; the Gulf of Guinea—a broad arm of the Atlantic—with the Bights of Benin and Biafra, Walfish Bay, and

1. The name *Africa* was given by the Romans to the Carthaginian territories (Tunisi, &c.), and was subsequently applied to the whole continent.

2. Blanco, white. *Of Mont Blanc.*

3. Bojador, the "round" cape.

4. Verde, "green"; so called from the colour of the sea between it and the islands of the same name.

5. Cape of Good Hope. This famous headland was discovered in 1487 by Bartholomew Dias, who named it *Cabo Tormentoso*, the Cape of Tempests, afterwards changed by John III., King of Portugal, to *Cabo de Buona Esperanza*, the Cape of Good Hope.

6. Agulhas, "needles." Off this Cape is the vast *Bank of Agulhas*.

7. Corrientes, "currents."

Table Bay, on the *west*; False Bay, Mossel Bay, and Algoa Bay, on the *south*; the Red Sea with the Gulf of Suez, the Gulf of Aden, Sofala Bay, Delagoa Bay, and Port Natal, on the *east*.

The Mediterranean is common to all the three continents of the Old World, but it is more European than either Asiatic or African. By far the larger portion of its coast-line is European, and while its northward coasts exhibit every variety of contour, embracing numerous peninsulas and intervening channels, its southward (or African) line of coast is comparatively unbroken. The Gulfs of Sidra and Kabes are the two chief inlets on the Mediterranean portion of the African coasts. The Gulf of Sidra was called by the ancients *Syrtis major*,<sup>1</sup> and was dreaded on account of its shallows and shifting sands. The Gulf of Kabes, further west, was the *Syrtis minor* of antiquity.

**3. Channels and Straits.**—The principal of these are the Strait of Gibraltar, between Morocco and Spain; the Mozambique Channel, between Madagascar and the mainland; and the Strait of Bab el Mandeb,<sup>2</sup> leading from the Gulf of Aden into the Red Sea.

Besides these, the artificial channel leading from the Mediterranean to the Red Sea—the **Suez Canal**—should be noticed. This channel is not only of vast commercial importance, but practically converts the continent of Africa into an island.

**4. Islands.**—Compared with the adjoining continents, Africa is singularly destitute of islands, while Europe and Asia are rich in islands and archipelagoes.

The principal islands are Madeira, the Canary Islands, the Cape Verde Islands, Ascension, St. Helena, and Tristan d'Acunha, in the *Atlantic*; with Fernando Po, Prince's Island, St. Thomas, and Annobon, in the *Gulf of Guinea*. Madagascar, Bourbon or Réunion, Mauritius, the Comoro Islands, Zanzibar, and Pemba, the Seychelles, the Amirante Islands, and Socotra, are in the *Indian Ocean*.

In the Red Sea there are numerous islands which adjoin the African coast, and there are also a few in the Mediterranean. But these are small and unimportant. Madagascar is second only in size to the island of Borneo, and therefore the fifth largest island in the world.

**SURFACE.**—The entire continent of Africa may be regarded as a vast plateau of moderate elevation, girdled by a comparatively narrow, low-lying, and generally unhealthy coastal belt, and edged by ranges of mountains or hills. The *average elevation* of this great inland plateau declines from about 4,000 feet in the south, to less than 1,500 feet in the north. The loftiest mountains in Africa are Kilimanjaro (19,680 feet), a little to the south of the Equator; Kenia (18,000 feet), on the Equator; and Ruwenzori (19,000 feet), a little to the north of the Equator. There are lofty mountains also in Abyssinia, North Africa, South Africa, and elsewhere, but the various ranges and mountain groups, unlike those of the Eurasian and American continents, have little or no connection with one another.

Strictly speaking, the mountains of Africa can scarcely be arranged in *systems*, they must, consequently, be grouped simply according to their position on the continent.

1. In the north are the *Atlas Mountains*, extending from the Atlantic seaboard of Morocco to the coast of Tunis.

The *Atlas Mountains* consist of a series of ranges, generally parallel to each other, and connected by lofty uplands, but here and there divided by deep valleys and precipitous gorges. The western portion of the system—the **Great**

1. Latin, *syrtis*, a quicksand.

2. Bab el Mandeb, "the gate of tears."



Atlas—is the loftiest; <sup>1</sup> the **Maritime Atlas** and the **Saharan Atlas**, in Algeria and Tunis, average between 3,000 and 4,000 feet in height.

2. The **Western Ranges** include the *Futa Jallon* highlands, the *Cameroons*, and the various “serras” and hill ranges which extend from the Cameroons to the Orange River.

The very name of the mythical “Mountains of Kong” has at last disappeared from all modern maps of Africa; the head waters of the three great rivers of this region—the Niger, Senegal, and Gambia—are now said to have their rise in the **Futa Jallon Highlands**, on the southern edge of which **Mount Dare** attains a height of 4,500 feet. The isolated volcanic group of the **Cameroon Mountains** adjoins the coast near the head of the Bight of Biafra, and rises in *Mount Albert* to a height of 13,760 feet. South of the Cameroons, the western edge of the plateau is more or less distinctly marked by the ridges and ranges through which the Ogowai, the Congo, and the Cueneo rivers break through from the interior uplands.

3. The **Eastern Ranges** include the various mountains and ranges on the uplands and along the coast from the shores of the Red Sea to the River Zambesi.

The **Mountains of Abyssinia** break up the surface of a lofty plateau, the eastern edge of which rises steeply from the low coast plains to a height of from 7,000 to 8,000 feet. The Alpine heights of Semen, which contain the sources of the Atbara, are the loftiest portion of the Abyssinian mountain system; their culminating point, **Ras Dashan**, attains a height of 15,160 feet, or more than 2,000 feet above the snow-line. From **Mount Taranta**, on the north-eastern edge of the plateau, a chain of minor elevations runs along the western shore of the Red Sea, rising in the **Emerald Mountains** to a height of 9,600 feet, and finally terminating in **Jebel Attaka**, 2,600 feet, near the head of the Gulf of Suez.

To the south of the Abyssinian highlands, the continent also rises and expands into less elevated plateaux, from which large isolated mountain masses and lofty ranges rise, attaining in **Mount Kilimanjaro**, the culminating point of the continent, a height of 19,680 feet, and in **Mount Kenia** to over 18,000 feet. Both Kilimanjaro and Kenia are between the Victoria Nyanza and the coast; on the other side of the lake rise the long-lost “Mountains of the Moon,” which Mr. Stanley has identified with the lofty **Ruwenzori Range**, in Uganda. The central portion of the range is covered with perpetual snow, and **Mount Ruwenzori**, the “Snow King,” rises to a height of 19,000 feet, and **Mount Gordon Bennett** to 16,000 feet. Further south, between the Albert Edward Nyanza and the Alexandra Nyanza, **Mount Mfumbiro** rises to a height of nearly 10,000 feet.

The east-central highlands are continued southwards through the Great Lake Region, the average elevation of the uplands east of Tanganyika being over 4,000 feet, while the highest point in the **Livingstone Mountains**, which wall in Lake Nyassa on the north-east, attains an absolute height of not less than 11,000 feet.

4. The **Southern Ranges** include the *Mashona* and other mountains between the Zambesi and the Limpopo; the *Randberg*, between the Limpopo and the Tugela; the *Drakensberg*, between Natal and the Orange Free State; and the *Sneeuwberg* and *Nieuwveld*, and other minor elevations in the Cape Colony.

The *Mashona* and the **Matoppo Mountains** diversify the upland region between the Zambesi and the Limpopo. South of the latter, the edge of the plateau is marked by the **Lobombo Mountains**, between the low coast-plain of Delagoa Bay and the Transvaal, and still further south by the **Randberg**

1. The highest summit yet discovered appears to be *Tisi-a-Tamjurt*, which Mr. Joseph Thom-son estimates at about 15,500 feet above the level of the sea.

(*Spits Kop*, 7,500 feet), in the east of the Transvaal, and the giant range of the Drakensberg, between Natal and the Orange Free State, in which *Calvin Peak* rises to a height of 10,370 feet.

South of the Orange River and within the limits of the Cape Colony, the mountains consist of a series of parallel ranges, rising along the edges of the characteristic terrace-plateaux of this region. First, we have a long range extending along the south coast, at a distance of from 10 to 50 miles, known in the east as the *Oudeniqua Range*, and further west as the *Lange Berge*, curving north, parallel to the coast, as the *Drakenstein Berge* and the *Olifant Berge*. The first terrace-plateau—the *Kannaland Karroo* and the *Long Kloof*—intervenes between this range and the loftier and more marked *Zwarte Berge* or *Black Mountains*, beyond which the broad upland of the *Great Karroo* extends to the base of the main range of the system, which marks the southern border of the great South African Plateau. Its central portion, the *Sneeuwberg*, rises in *Compassberg*, the culminating point of the system, to an elevation of 9,000 feet above the sea. Like other ranges which mark the outer edges of upland plains or tablelands, the sea-ward faces of the Cape mountains are steep, while on the other side the slope is comparatively gradual. The main ranges are frequently broken by narrow defiles, by which alone access from one terrace to another is possible. The higher ridges and summits are nearly everywhere flat-topped; the most remarkable instance of this formation being *Table Mountain*, the culminating point of an isolated group of heights near the Cape of Good Hope.

But the great natural feature of Africa—surpassing all others in magnitude and importance—is its *Great Desert*, or *Sahara*, which stretches across the entire breadth of the continent, and is by far the largest desert in the world, as well as the most barren of such regions.

The region known as the *Sahara*<sup>1</sup> extends in the direction of east and west for 3,000 miles, from the shores of the Atlantic to the valley of the Nile. In the opposite direction, it is limited by the slopes of the Atlas Mountains on the north, and the basins of the Niger and Lake Chad to the southward, having a breadth which averages a thousand miles. This immense region is not uniformly barren, nor does its surface exhibit perfect uniformity of aspect.

In general, the Sahara forms a plateau of moderate elevation (averaging from 1,000 to 1,500 feet above the sea), crossed in some places by chains of hills which rise several hundred feet above its level. The surface of the wilderness exhibits, however, for the most part, a sandy or gravelly waste, furrowed at frequent intervals by the beds of water-courses, which are dry during ten months of the year. The absence of running streams is the most marked characteristic of the desert. Springs occur at distant intervals, and, wherever they are found, an *oasis*<sup>2</sup> of verdure is created.

The most sterile portion of the Sahara is its westerly division, that is, the part intermediate between Fezzan, in the south of Tripoli, and the shores of the Atlantic. Extensive tracts are there covered with dry and heated sand, raised into hillocks which shift their place under the influence of the wind. The oases are there at longer distances apart than is the case in its more eastwardly portion.

There are also some extensive deserts in Southern Africa. They consist of arid and gravelly plains, locally known as *karroos*. The *Great Karroo* is within the limits of the Cape Colony, to the south of the Orange River. The *Kalahari Desert* is to the north of that river.

1. That is, the Desert, which is what the Arabic word *Sahara* means. In pronouncing this word, the accent should be laid upon the second syllable, thus, *Sa-Aa'-ra*.

2. The word *oasis* is Greek, but derived from a Coptic word, *oasis*, signifying "a resting-place

or dwelling." The perennial spring of water naturally becomes the resting-place of the traveller across the wilderness. The oasis of the desert—possessing verdure in the midst of surrounding sterility—has been often likened to an island in the midst of the ocean.

**RIVERS and LAKES.**—Africa is singularly destitute of permanently flowing rivers, but in no other continent, except North America, are there so many extensive lakes—several of them veritable inland seas of fresh water.

**River-Systems.**—Most of the rivers of Africa belong to two oceanic river-systems—that of the Atlantic and that of the Indian Ocean. The rest are continental rivers, and belong to the regions of inland drainage in the centre and south of the continent.

There are two remarkable regions of inland drainage in Africa, one to the north, and the other to the south of the Equator. In the former, the vast, variable, and shallow lagoon known as **Lake Chad**, receives the **Shari** from the south, and the **Komadugu** from the west, and occasionally overflows, by the **Bahr el Ghazal**, into a remarkable depression called the **Bodele**. The other inland drainage area referred to is that of **Lake Ngami**, on the northern borders of the Kalahari Desert, in South Central Africa. The Ngami receives the waters of the river **Tioge**, which, under the name of **Cubango** or **Okavango**, rises in the Mossamba Mountains, and in the rainy season overflows by the **Zouga** into a series of salt pans, and, according to Dr. Holub, occasionally into the **Shasha**, an affluent of the **Limpopo**.

The African Section of the Atlantic River-System comprises the rivers flowing into the Mediterranean, and those that enter the Atlantic directly; in other words, the rivers that drain the northern and western slopes of the African continent. Of the former, the only great river is the Nile; the latter includes the **Senegal**, the **Niger**, the **Congo**, and other large rivers.

West of the Nilotic delta, numberless winter torrents fall into the sea, but few of them preserve a continuous flow of water, and even the larger perennial rivers of the Barbary region are unnavigable, and almost dry in summer. Of these, the largest are the **Muluya** in Morocco, the **Shelif** and **Roumel** in Algeria, and the **Mejerda** in Tunis. All these streams rise in the Atlas Mountains and flow, for the most part, through deep valleys and narrow defiles.

The Nile is not only the longest, but also the most important and interesting of the great rivers of Africa. It has a course of over 3,500 miles, and drains an area of over a million square miles. The Nile is, therefore, the second river of the globe in length, but only the twenty-seventh in volume, being exceeded in this respect not only by the Congo, Niger, and Zambesi, but also by such streams as the **Atrato**—one of the minor streams of South America—a river with a catchment-basin scarcely a hundredth part of that of the great river of North-Eastern Africa.

Both the great headwaters of the Nile, the Blue Nile and the White Nile, issue from lakes—the former from **Lake Dembea**, on the Abyssinian plateau; the latter from the vast expanse of the **Victoria Nyanza**, on the Equatorial tableland—the ultimate sources of both these branches being the main feeders of these lakes. The **Bahr el Abiad** or **White Nile**, which must be regarded as the true Nile, leaves the **Victoria Nyanza** at an elevation of 3,800 feet above the sea, and flows north-west, its descent being marked by the **Ripon**, **Karuma**, and **Murchison Falls**. It then enters the northern end of the **Albert Nyanza**, on leaving which it commences its grand northerly flow—as a broad and never-failing stream—to its final outlet in the Mediterranean.

Of the rivers which flow directly into the Atlantic on the western side of Africa, the most considerable are the **Senegal**, **Gambia**, **Niger**, **Congo**, **Coanza**, **Cunene**, and **Orange**.

The **Senegal** rises, under the name of **Bafing**, in the **Futa-Jallon Highlands**, not far from the source of the **Joliba** or **Niger**. It flows first north, gradually curving west to the sea, which it enters by two mouths, between which

is the island of St. Louis. The Gambia rises in the same mountain region as the Senegal, and enters the sea near Cape St. Mary. The volume of both these rivers varies according to the season. Their upper and middle courses are obstructed by numerous falls, but their lower courses are regularly navigated by French and British trading vessels and gunboats.

The great river Niger rises under the name of Joliba, in Mount Loma, on the borders of the *Futa-Jallon Highlands*. It is the third in length of the African rivers—its course being over 2,800 miles—and it ranks next to the Congo in the extent of its drainage area, but surpasses both the Congo and the Nile as a commercial waterway. About 250 miles from the sea, it is joined by the broad and deep Benue, from the mountain region south of Lake Chad; the united stream, a mile in width, then pierces the escarpment of the interior upland, and enters the plain—dividing, at a distance of about 90 miles from the sea, into numerous channels, the mouths of the most distant of which are 240 miles apart. The Delta of the Niger is much larger than that of the Nile, and is nearly everywhere covered with a dense growth of tropical vegetation. The main channel is known as the Nun, and is constantly traversed by steamers to and from the busy trading stations on the river. The Benue River is the most westerly, and the Bonny River the most easterly, of the delta branches.

The Congo is inferior to the Nile in length, but discharges into the sea a much greater volume of water, perceptible many miles out at sea. This great river has a total course of 2,900 miles, of which over 2,000 miles in all are navigable, but unfortunately the navigation is obstructed by falls and rapids. Its drainage area is estimated at 1,300,000 square miles, or one-ninth of the continent.

The Congo rises, under the name of the Chambezi, in the *Urungu Mountains*, south of Lake Tanganyika. The Chambezi flows west into Lake Bangweulu, and issues from it as the Luapula, with a northerly flow into Lake Moero, from which the now considerable stream, after receiving the overflow from the south-west of the Kamolondo chain of lakes by the Lualaba, passes through Lake Lanji, which receives the Lukuga from Lake Tanganyika, and pursues its course northward as the Congo. Below Nyangwe, it falls over a series of cataracts, which terminate in Stanley Falls, near the Equator. Thence it curves west and south-west, a broad and navigable stream, until, at about 140 miles from the sea, it descends to the coast-plain by the Yellala Rapids and Falls. Thence it gradually widens, and enters the sea by a broad estuary, 7 to 10 miles in width.

The Orange River is formed by the junction of the Vaal and the Nu Gariep, both of which rise on the slopes of the *Mont aux Sources*, one of the loftiest summits of the *Drakensberg Mountains*. The Orange, notwithstanding its great length (about 1,200 miles), is a mere torrent, extremely shallow in the dry season, and is altogether unnavigable, except by boats for about 30 miles above the bar at its mouth.

The African Section of the River-System of the Indian Ocean is vastly inferior to the Asiatic Section of the same system, both in the number and magnitude of its rivers. Although the eastern edge of the great African plateau does not approach the coast so closely as the western, still, the interior drainage, north of Lake Nyassa, flows north into the Nile, or west into the Congo, so that the rivers flowing into the Indian Ocean have comparatively short courses.

North of the Equator, the most considerable in point of length appear to be the Haines River, the outlet of which is barred by sandhills, and the longer Juba, which rises on the southern borders of the Abyssinian highlands, and forms an excellent waterway into the interior. The most important river in British East Africa is the Tana, which rises in *Mount Kenia*.

South of the Equator are the Kingani, the Wami, the Rufiji, and the Rovuma. The last-named river enters the sea by a single channel, about 16

miles north of Cape Delgado, and forms the line of demarcation between the German and Portuguese possessions in East Africa.

The **Zambesi**, the largest river of Eastern Africa, rises under the name of the **Leeba** in *Lake Dilolo*, and, about 200 miles from its source, receives the **Kabompo** river (which forms the boundary between Portuguese West Africa and British Northern Zambesia) from the *Mushonga Mountains*, which form part of the watershed between the basins of the Congo and the Zambesi. It then turns south-east through the Barotse valley, and in long.  $25^{\circ}$  E. receives the **Chobe** river from the west. About 40 miles east of its confluence with the Chobe, the now considerable river suddenly plunges into a deep but narrow gorge, which extends right across its course, forming the uniquely magnificent *Victoria Falls*. Between the 16th parallel of latitude and the Falls, a distance of 220 miles, the channel is, according to Major Serpa Pinto, obstructed by no less than 72 cataracts and rapids. Below the Victoria Falls, the Zambesi flows with a rapid current eastwards, receiving several large tributaries both from the south and north. At **TETE**, where it becomes navigable, it bends south-east, and ultimately discharges its waters into the Indian Ocean by several mouths. Its Delta, which is larger than that of the Nile, is periodically inundated. About 100 miles from the sea, the Zambesi is joined by the **Shiré**, which drains *Lake Nyassa*. The navigation of the Shiré is, unfortunately, obstructed by the **Murchison Cataracts**.

The only other large river of Eastern Africa is the **Limpopo**, which derives its head-waters from the *Witwatersrand* and other ridges on the "Hooge Veldt" of the Transvaal. Its course forms almost a semicircle; its mouth, which lies 40 miles north of Delagoa Bay, is scarcely 400 miles east of its source, while the total length of the stream is estimated at 1,300 miles.

Of the many streams which flow eastwards from the *Drakensberg* to the sea, the longest is the **Tugela**, the lower course of which forms the boundary between the colony of Natal and Zululand.

**LAKES.**—Africa contains some of the largest fresh-water lakes in the world, and the **Great Lakes** of the Equatorial Tableland are equalled only by the Great Lakes of North America.

The **Victoria Nyanza**<sup>1</sup> (the largest fresh-water lake in the world, with the single exception of Lake Superior), the **Albert Nyanza** and the **Albert Edward Nyanza**, all on the Equatorial plateau, with **Lake Tsana** or **Dembes**, in Abyssinia, are connected with the *Nile*; the overflow of **Lakes Tanganyika**, **Bangweolo**, **Moero**, **Kassali**, **Lanji**, **Leopold II.**, and others, is carried off by the *Congo*, and that of **Lake Nyassa** finds an outlet by the *Shiré*. The chief "continental lakes" are **Lake Chad**, to the north of the Congo, and **Lake Ngami**, to the south of the Zambesi, both shallow expanses of fresh water.

The **VICTORIA NYANZA**, the second largest fresh-water lake in the world, is nearly as large as Scotland, and has a coast-line of fully 900 miles; it receives many large streams, the chief of which is the *Kagera River*, which flows from **Lake Alexandra** or **Akenyaru**, one of the ultimate sources of the Nile. The **Albert Nyanza** is a beautiful sheet of water, 150 miles long and 10 to 40 miles broad, bounded on either side by high mountains. Into this second great reservoir of the Nile, the *Semliki River* pours the surplus waters of the **Albert Edward Nyanza**, which lies midway between the giant heights of *Ruwenzori* on the north and *Mfumbiro* on the south.

Of the numerous lakes connected with the Congo, **Lake TANGANYIKA** is by far the largest and most important. This great lake is fully 400 miles in length, but does not exceed 50 miles in breadth. Its area is 15,000 square miles, or about twice the size of Wales. For a long time this lake, although its waters are fresh, was supposed to have no outlet. It is now, however, definitely proved that the *Luluga* carries its surplus waters to **Lake Lanji**, which also receives

1. The *Victoria Nyanza* was discovered by Speke in 1858, and the *Albert Nyanza* by Baker in 1864. Stanley, on his return with Emin Pasha, made an unexpected discovery of a considerable extension of the *Victoria Nyanza* to the south-west.

the overflow from **Lake Bangweolo** or **Bemba**, and from **Lake Moero** by the *Luapula*, and by the *Lualaba* from **Lake Kassali** and other smaller expanses to the west and north-west of **Lake Moero**.

**Lake Nyassa**, the third great lake of Central Africa, was discovered by Livingstone in 1859. It lies to the south of **Lake Tanganyika**. It is about 350 miles long and has an average breadth of 33 miles, a mean depth of 600 feet, and an area of 12,000 square miles, or twice the size of **Yorkshire**.

The largest of the "continental lakes" of Africa is **Lake CHAD**, which covers not less than 50,000 square miles during seasons of flood, but is greatly contracted at other times, and is little more than a vast swamp. **Lake Chad** has no permanent outlet, but its waters are fresh, and **Nachtigal** states that the lake occasionally overflows—the surplus waters flowing north-east along the *Bahr el Ghazal* channel into a great depression called the **Bodele**.

**Lake Ngami**, the "Chad" of Southern Africa, is much smaller than its prototype in the north. It lies on the northern border of the *Kalahari Desert*, and is fed chiefly by the *Okavango-Tloge River* from the north-west, which, in the rainy season, brings down such a flood of water that it overflows by the *Botletle* or *Zouga* channel to the great salt-pans on the east.

#### EXAMINATION QUESTIONS.

1. How is Africa bounded, and what is its position with reference to the other divisions of the Old World?
2. What proportion does Africa bear, in point of size, to the European and Asiatic continents?
3. By what is Africa distinguished, as a whole, in respect of its shape or external contour?
4. Name some of the principal capes of Africa, and state which of them form respectively the most northern, southern, eastern, and western points of the continent.
5. Point on the map to the following:—Cape of Good Hope, Cape Palmas, Cape Bojador, Cape Sparte, and Cape Delgado.
6. What two gulfs occur on the Mediterranean coasts of Africa? Give their ancient as well as their modern names.
7. What gulf is on the west side of the African continent? What arms of the sea on its eastern side?
8. Name the principal islands of Africa.
9. Africa has four mountain systems. Name the principal ranges in each system.
10. State what you know of the tablelands and plains of Africa.
11. Give some account of the Sahara.
12. What is meant by the term *oasis*?
13. Name the principal rivers of the African continent. Describe briefly the following rivers:—The Nile, Congo, Senegal, Niger, Zambesi.
14. What lakes belong to Africa, and which are the largest of them?

**CLIMATE.**—Africa is the hottest division of the globe. This is readily accounted for, as more than three-fourths of its extent fall within the **Torrid Zone**, and these portions of the continent exhibit a broad and unbroken mass of land, upon which the rays of a vertical sun act with intense power. The vast expanse of the **Great Desert**, or the **Sahara**, in particular, reflects an excessive amount of heat from its arid and waterless surface. The whole of this region forms a great natural furnace, the heated atmosphere generated in which is carried by the winds over distant lands and seas, only gradually losing its heat under the influence of the larger bodies of water.

The climate of tropical Africa<sup>1</sup> is for the most part dry, but a vast quantity of rain falls at particular periods of the year. The dry and rainy seasons succeed one another with perfect regularity, and they are the only seasons by which the climate of Africa, within the tropics, is distinguished. In the desert, rain very seldom occurs, only at intervals of several years, and intense aridity is its prevailing characteristic. But the plains of Central Africa, to the south of the desert, and also the low districts of the eastern and western coasts, have regular and abundant rains of annual recurrence.

1. The climate of tropical Africa is unhealthy to Europeans, from its intense heat, and still more from the prevalence, within the coast-regions, of noxious exhalations (the result of a burning sun acting upon a dense mass of vegetation, such as occurs at the mouths of the rivers and creeks), which generate fevers. Where any considerable elevation above the sea can be reached, these unhealthy influences disappear.

The extreme portions of the African continent, both in the direction of north and south, fall within the Temperate Zones. The plains and valleys of the Atlas region have a climate which resembles, in all essential respects, that experienced on the opposite shores of the Mediterranean. The Cape Colony, at the other extremity of the continent, is somewhat cooler, and is less abundantly supplied with rain.

**PRODUCTIONS.**—The natural productions of Africa are almost as rich and even more varied than those of any other continent. The vegetation includes a large number of peculiar plants, while animals, especially hoofed animals, pachyderms, and carnivora, are more numerous than in any other part of the world. Except in the south, where *diamonds*, *gold*, and *copper* are plentiful, the mineral resources of Africa do not seem to be exceptionally great.

1. **PLANTS.**—A vast number of the plants native to the African continent differ in all respects from those that belong to the other divisions of the globe. It is to the south of the Sahara that the distinguishing characteristics of African botany are observed.

The vegetation which is native to *Northern Africa* resembles that of the opposite shores of the Mediterranean. The rich fruits of southern Europe all grow to perfection in the watered valleys of the Atlas Mountains. The *fig*, *almond*, *orange*, *lemon*, *wine*, *mulberry*, and *peach* thrive there, and the mountain sides are clothed with the luxuriant evergreen foliage of southern lands.

The plains that adjoin the southern base of the Atlas are the region of the *date-palm*. To this succeeds the desert, with its scanty covering of thorny shrubs and grasses—diversified by the occasional growth of palms, which distinguish every oasis in the wilderness. The desert is a vast natural barrier to the passage of the various forms of life—vegetable and animal alike—that belong to the regions by which it is limited upon either side, and the trees and plants of Central Africa are entirely distinct from those that belong to the shores of the Mediterranean.

The forests of Central Africa, especially the great forest region traversed by Stanley, in 1889, between the Congo and the Great Lakes, include trees of vast size, most of them of species unknown in Europe. Among them are many which furnish timber of valuable quality, distinguished by the closeness of its texture and the beauty of its grain.

Some of the native plants yield articles of food, several of which are unknown in other lands. The *date-palm* “the *bread* of the desert” and the staple food for man and beast, grows abundantly in the Sahara and adjoining region. The *shea*, or butter tree, is so called from a kind of butter which is derived from the kernel of its nut. The *baobab*, or monkey-bread, is one of the most valuable boons conferred by nature upon the Negro inhabitants of the regions watered by the Senegal and the Gambia. The *oil-palm* is another of the valuable productions of the western coasts, and the *sago-palm* thrives on the eastern coast belt. The *manioc*, which yields a most nutritious food (*cassava* and *tapioca*) is extensively grown in tropical Africa, especially along the Guinea coast and in the Congo region. The palm-oil of commerce, now extensively used in our own country, is expressed from the nut of the oil-palm. The *yam*, *ground-nut*, and other esculent roots and highly nutritious fruits, such as the *banana*, are likewise among the native productions of the African soil within the Tropics. The *cotton-plant* grows wild, as also do the *sugar-cane* and the *indigo-plant*, though they have not been generally turned to much account by the native population. The highlands lying to the south of Abyssinia are the native region of the *coffee-tree*, but the plant is now largely cultivated in Liberia, on

the west coast. Rice, maize, and wheat are very largely grown in Egypt and the Barbary countries, and maize and wheat are the chief cereals in Southern Africa, where maize (or "mealies") forms the staple food of the natives.

The extreme south of the African continent, again, constitutes a third region of vegetable life, distinct from those of the north and the centre. The country to the south of the Orange River is the native seat of such plants as the aloes and the heaths. A vast variety of plants with thick, fleshy leaves, and thin wiry roots—capable of thriving in a comparatively arid soil, such as belongs to the plains of that region—abounds in the neighbourhood of the Cape of Good Hope. Some of the choicest ornaments of our greenhouses—the geranium, for example—have been originally derived thence.

**2. ANIMALS.**—Africa abounds more than any other of the continents in variety of animal life, and in the vast number of its mammalia; that is to say, it contains a greater number of native species (many of them peculiar to it) and exhibits also an immense numerical development of many among these species.

The regions which are marked out as the seats of distinct forms of vegetable life in the African continent are characterised by cognate differences in the animal world, though the line of division is perhaps less definite. The influence of the vast desert is, however, strikingly noticeable. The lion of Northern Africa is of a different species from that native to the southerly division of the continent. The striped hyena, which is common to North Africa with the neighbouring countries of Western Asia, is not found to the south of the desert, where the spotted hyena takes its place. The giraffe or camelopard—an animal peculiar to the African division of the globe—is native to the whole interior of Southern Africa, but is not found either to the north of the desert or within its limits. The zebra, and other animals of the same family, are peculiar to Southern Africa; so also are the elands, and several other large members of the antelope kind.

Among the quadrupeds which are peculiar to Africa may be mentioned the hippopotamus and the rhinoceros. The former, which frequents the marshy banks of rivers and inland lakes, is found from the upper part of the Nile valley southward to the Orange River, and westward to the shores of the Atlantic Ocean; the rhinoceros is native to the plains of Central and Southern Africa. The African elephant belongs to the same wide-spread region, limited on the north by the impassable barrier of the desert. This latter tract would be almost as impassable to man as it is to the lower animals, were it not for the camel, which fills, in the northern half of the African continent, the same place that it does in the arid wildernesses of Western Asia.

The quadrumanous order of animals—monkeys, baboons, &c.—is numerously developed in Africa, and its various members are found through nearly the whole extent of the continent, and from the Atlas Mountains to the forests of Cape Colony. Only in the desert, again, are they absent. The forests of the western coasts, within the Tropics, give shelter to the species of apes which makes nearest approach to the human form. The chimpanzee of Senegambia is surpassed in this respect by the gorilla of the Gabun River, within the woods adjoining which it was seen for the first time by Europeans.

Among birds, the ostrich is peculiar to Africa. In the Cape Colony and the Orange Free State this "giraffe among birds" is domesticated and reared like sheep or cattle. The guinea-fowl is the only member of the gallinaceous tribe native to this continent. The sun-birds of the western coast, and the honey-suckers of the Cape of Good Hope, are distinguished by their smallness of size as well as by the brilliancy of their plumage.

The crocodile of the Nile valley is one of the characteristic members of African zoology in the reptile division of the animal kingdom. It belongs to other rivers within tropical Africa, as well as the Nile. Serpents, lizards, and other reptiles are sufficiently numerous in the marshy regions of the coasts, but are less common in Africa than in some other divisions of the globe. Of



noxious insects, the *tsetse fly* and the *white ant* are perfect pests in South Central Africa, where large areas are almost covered with *ant-hills*, and as for the *tsetse fly*, which infests the low plains between the Zambesi and the Limpopo, it is "an insect resembling and scarcely larger than our common house-fly, and its bite is fatal to horses and sometimes to cattle, though it is perfectly harmless to man or to wild animals."

**MINERALS.**—Little is known concerning the mineralogy of Africa, except in the south and the extreme north, and along various parts of the coast. The Atlas region has been found to include a rich variety of ores, among them *iron, copper, lead,* and other metals; and at the opposite extremity of the continent, the *diamond fields* and *copper mines* of the Cape Colony, and the *gold fields* of the Transvaal and Mashonaland, are extremely rich.

**Gold-dust**, derived from the beds of numerous rivers within tropical Africa, has been in all ages an article of export from this portion of the globe. Both the eastern and western coasts furnish gold, and a part of Guinea is especially distinguished as the "Gold Coast." The quantity of gold derived thence, however, in the present day is exceedingly trifling, and the precious metal is now obtained chiefly from the rich gold-fields of the Transvaal and Mashonaland. In the Transvaal the *Witwatersrand Gold-field*, with JOHANNESBURG for its centre, and the *De Kaap Gold-field* around BARBERTON, with smaller gold areas at Heidelberg, Zoutspansberg, and in Swaziland, are being energetically worked, principally by British mining companies. The Gold Fields of Mashonaland are also being actively opened up by the British South Africa Company.

The *Diamond Fields of South Africa* are the richest in the world, the "Four Mines" in Griqualand West—the *Kimberley, De Beer, Dutoitspan* and *Bultfontein Mines*—have already yielded diamonds to the value of about 60 millions sterling. There are also productive diamond mines in the Orange Free State, and from the "River Diggings" along the Vaal some of the finest gems have been obtained. But as the country becomes more settled, the diamonds and gold will be of less real value than the *iron* and *coal* which is found in both the Cape Colony and Natal.

**INHABITANTS.**—Africa is the native home of the *Negro race*, to which the great bulk of the inhabitants belong.

But in this, as in all other respects, the desert constitutes a region of division. The inhabitants of Northern Africa are *Berbers, Moors, and Arabs*—people of swarthy complexion, but perfectly distinct from the Negro type. The wandering inhabitants of the desert belong also to the Arab stock. It is not until the southern limit of the Sahara is passed that *Negro Africa* begins. This is the region known in African geography as the *Sudan*—i.e., the land of the blacks, or Negroland.

The dark skin, thick lips, and woolly hair of the negro are among the distinguishing features of that race. But there are numerous points of difference between the various negro nations, as there are between the various nations of the European and Asiatic continents. The inhabitants of the Nile valley, in the present day, are chiefly of Arab race, except in its upper part, where they are mixed with native African nations.

Negro Africa includes the greater part of Africa within the Tropics. The southern part of the continent, like the extreme north, is peopled by other varieties of the human family. The *Bantu races* include the *Kaffirs* of Cape Colony and Natal, the *Basutos, Bechuanas, Matabeles, Zulus, Swasis, &c.*, as well as the *Waganda, Wanyoro,* and other peoples of East Central Africa, all of whom differ considerably from, and are nobler specimens of humanity than, the

1. The population of Africa is roughly estimated at 200 millions, i.e., only about 16 inhabitants to the square mile. In a paper read, in 1890, before the British Association, the population of Africa was estimated at 127,000,000, giving a density of 11 to the square mile.

true Negro. The *Hottentots*, who call themselves Khoi-Khoïn (men of men, Gui-Khoïn (first men), and Ava-Khoïn (red men), and who once ruled over all temperate South Africa, are now found only in the south-west. Still more primitive and puny races are the *Bushmen* of the Kalahari Desert, the *Akkhas* of the Welle-Makua district in the Congo State, and the *Pygmies* of the great Aruwimi forest.

**Religion.**—The bulk of the natives in Central and Southern Africa are pagans, making a "fetish" or god of any object. *Mohammedanism* prevails throughout Northern Africa, and is at the present day being actively propagated in the Sudan. *Christianity* is professed not only by the European colonists of Algeria and Southern Africa, but also by the Copts of Egypt, and, in a corrupted form, by the Abyssinians.

**DIVISIONS.**—The numerous changes in the political and territorial divisions of Africa, effected during recent years, have doubtless proved somewhat confusing to the student, especially if he has not been able to correct the statements in the ordinary text-books by reference to the most recent maps. It may therefore be of service to give a two-fold view of the present divisions of the continent.

**I. NORTHERN AFRICA** includes :—

1. The Native Kingdom of Morocco.
2. The French Colony of Algeria and the Protectorate of Tunis.
3. The Turkish Vilayet of Tripoli, including Fezzan and Barca.
4. Egypt, nominally a Province of the Turkish Empire, but practically a British Protectorate.

**II. WESTERN AFRICA** includes :—

1. The Spanish Saharan coast, from the borders of Morocco to Cape Blanco.
2. The French Colony of Senegambia, and the French Protectorate over all the native States and Kingdoms in the basin of the Senegal and the Upper Niger, and across the Sahara to the borders of Algeria.
3. The British Colony of the Gambia.
4. Portuguese Guinea and the Bissagos Islands.
5. The British Colony of Sierra Leone.
6. The Independent Republic of Liberia.
7. The French Ivory Coast district.
8. The British Gold Coast Colony, with the formerly independent Native State of Ashanti.
9. The German Colony of Togoland.
10. The French Protectorate of Porto Novo and Dahomey, formerly the most powerful native kingdom on the Guinea Coast.
11. The British Colony of Lagos, with its dependency—the former native kingdom of Yoruba.
12. The Niger Protectorate, which includes the entire coast from the Benin River on the west, to the Rio del Rey on the east, and divided into (a) the Niger Territories, governed by the Royal Niger Company, and (b) the Oil Rivers District.
13. The German Protectorate of the Cameroons.
14. The French Congo, which includes the whole region between the Cameroons and the Lower Congo, with the exception of the Corisco Bay enclave, which belongs to Spain, and the small Portuguese district of Cabinda, and the narrow coastal zone belonging to
15. The Congo State, nominally independent, with the King of Belgium as sovereign, but practically a Belgian Crown Colony.
16. Portuguese West Africa, or Angola, extending from the Congo on the north to the Cunene River on the south, and including the divisions of Loanda, Benguela, and Mossamedes.

**III. SOUTHERN AFRICA** includes :—

1. **British South Africa**—the **Cape Colony, Natal, Basutoland, the Colony and Protectorate of Bechuanaland, Zululand, Tongaland, Southern Zambesia and Swaziland** (under joint British and Boer protection).
2. **The two Boer Republics**—the **Orange Free State** and the **South African Republic** (or the **Transvaal**).
3. **German South-West Africa**, which extends along the **Cunene River** on the north to the **Orange River** on the south, and includes **Kaokoland, Damaraland, and Namaqualand**.

**IV. EASTERN AFRICA** is divided into :—

1. **Portuguese East Africa**, which extends along the coast on either side of the **Lower Zambesi**, from **Delagoa Bay** on the south to the **Rovuma River** on the north.
2. **German East Africa**, extending from the **Rovuma River** on the south to the **Umba River** and **Mount Kilimanjaro** on the north, and inland to the **Great Lakes**.
3. **British East Africa** (**Ibea**), extending from the **Umba River** on the south, to the **Juba River** on the north, and inland to the **Victoria Nyanza** and **Upper Nile**.
4. **The British Protectorate of Zanzibar** (**Zanzibar Island** and **Pemba**).
5. **Italian East Africa**, which includes the **Somali Coast** between the **Juba River** and **Ras Hafun**, and the province of **Eritrea**, which includes the districts to the north and south of **Massowa** on the **Red Sea Coast**.
6. **The native kingdom of Abyssinia**, nominally an **Italian Protectorate**.
7. **The British Protectorate of the North Somali Coast**, with the island of **Socotra**; the **French colony of Obok** and **Tajura Bay**.
8. **Nubia** (part of) and the **Eastern Sudan**, governed, since the revolt of 1884, by the **Mahdi** and his successor.

**V. INNER AFRICA** includes :—

1. **The countries of the Sudan**—**Massina, Segu, &c.**, within the **French sphere of influence**; **Sokoto** and **Gando**, attached by treaties to the **Royal Niger Company**; and the independent States of **Bornu, Kanem, Bagirmi, Adamawa, Wadal**, and, further east, **Darfur** and **Kordofan**, which were formerly included in the **Egyptian Sudan**.
2. **The Congo Free State**, though its outlet and chief centres of authority and commerce are on the **West Coast**, is yet essentially an **Inner or Central African State**.
3. **Northern Zambesia and Nyassaland**, or **British Central Africa**, embracing the territories between the **River Zambesi** and **Lakes Nyassa and Tanganyika**.

**VI. INSULAR AFRICA** includes :—

1. **Madagascar** and the **Comoro Islands**, which are **French Protectorates**, and **Réunion** or **Bourbon**, a **French colony**.
2. **The British Colony of Mauritius**, with its dependencies—the **Seychelles** and the **Amirante Islands**.
3. **Socotra**—a **British possession**, politically attached to **Aden**.
4. **The British islands of St. Helena, Ascension, and Tristan d'Acunha**, in the **Atlantic Ocean**.
5. **The Portuguese islands of Prince's and St. Thomas**, and the **Spanish islands of Fernando Po and Annobon**, in the **Gulf of Guinea**.
6. **The Cape Verde Islands and Madeira**, which belong to **Portugal**, and the **Canary Islands**, which belong to **Spain**.

The Territorial Divisions of Africa may be also arranged according to the European powers to which they belong, or by which they are claimed.

**I. BRITISH AFRICA** includes :—

1. **British West Africa**—the Gambia, Sierra Leone, the Gold Coast, Lagos with Yoruba, the Niger Territories, and the Oil Rivers District.
2. **British South Africa**—the Cape Colony, Natal, Basutoland, Zululand, Tongaland, Bechuanaland, and Southern Zambesia.
3. **British Central Africa**—Northern Zambesia and Nyassaland.
4. **British East Africa**—Ibea, Zanzibar and Pemba, with the Northern Somali Coast.
5. **British Insular Africa**—Mauritius, the Seychelles and Amirante Islands, Socotra, St. Helena, Ascension, and Tristan d'Acunha.

**II. FRENCH AFRICA** includes :—

1. The Colony of Algeria and the Protectorate of Tunis in North Africa.
2. The Colony of Senegambia with the native protected States in the basins of the Senegal, the Gambia and the Upper Niger, and the Settlements and Protectorates on the Guinea Coast in West Africa.
3. The French Congo (the Gabun, &c.).
4. The Protectorates of Madagascar and the Comoro Islands.
5. The Colonies of Réunion and Obok.

**III. GERMAN AFRICA** includes :—

1. Togoland and the Cameroons on the Guinea Coast.
2. German South-West Africa.
3. German East Africa.

**IV. PORTUGUESE AFRICA** includes :—

1. Portuguese Guinea, with the Bissagos Islands.
2. Portuguese West Africa—Angola.
3. Portuguese East Africa—Mozambique.
4. The islands of Madeira, Cape Verde, St. Thomas, and Prince's.

**V. SPANISH AFRICA** includes :—

1. The Presidios—Ceuta, Tetuan, &c., in Morocco.
2. The Saharan Coast and Corisco Bay.
3. The islands of the Canaries, Fernando Po, and Annobon.

**VI. ITALIAN AFRICA** includes :—

1. The Eastern Somali Coast.
2. The Province of Eritrea, on the Red Sea.
3. The Protectorate of Abyssinia and Shoa, with the Galla Country north of the 6° of North latitude and east of the 35° of East longitude.

**VII. TURKISH AFRICA** includes :—

1. The Vilayet of Tripoli with Barca and Fezzan.
2. Egypt, nominally a Tributary State.

**VIII. DUTCH AFRICA** (no political connection with Holland).

1. The South African Republic or the Transvaal.
2. The Orange Free State.

**IX. BELGIAN AFRICA** (not politically attached to Belgium).

1. The Congo Free State.

**X. DEPENDENT NATIVE STATES.** The principal of these are :—

1. Sokoto and Gando, attached to the Niger Territories.
2. Dahomey, now a French Dependency.

3. **Lunda**, attached to Portuguese West Africa.
4. **Kasongo**, attached to the Congo Free State.
5. **Uganda, Unyoro**, and parts of **Ruanda and Karagwe**, included within the sphere of British East Africa.
6. The rest of **Ruanda and Karagwe**, included in German East Africa.
7. **Swaziland**, under the joint protection of England and the Transvaal.

XI. **INDEPENDENT NATIVE STATES.** The most important of the "still unappropriated" native territories are:—

1. The **Central Sudan States** of Bornu and Wadai, with Kanem, Bagirmi, and Darfur.
2. The **Eastern Sudan and Nubia**, which are, however, nominally included in the British Sphere of Influence.

### EXAMINATION QUESTIONS.

1. By what is the climate of Africa distinguished?
2. By what conditions are the rains distinguished?
3. What portions of Africa enjoy a temperate climate, and why?
4. Mention some of the fruits that flourish in Northern Africa.
5. What part of Africa is especially distinguished as the region of the date-palm?
6. Mention some of the distinguishing features of African vegetation south of the Great Desert.
7. The extreme south of the African continent forms a third region of vegetable life: what class of plants form a chief part of its distinguishing features?
8. Among carnivorous animals, mention some that are found in Africa.
9. To what parts of Africa are the giraffe and zebra native?
10. Which portion of the African continent is especially distinguished by its abundance of animal life? What classes of animals are most numerous found there?
11. Among African quadrupeds are the hippopotamus, the rhinoceros, and the elephant: to what portions of Africa are they native?
12. Are animals of the quadrumanous order numerous in Africa? Which amongst them is remarkable for its near resemblance to the human figure, and where is it found?
13. What particulars do you know concerning the birds that are native to the African continent?
14. Say what you know of the mineral productions of Africa.
15. Of what branch of the human family is Africa the special home? By what peculiarities of appearance is this variety of mankind distinguished?
16. What races of people constitute the inhabitants of Northern Africa?
17. Point on the map to those parts of the African continent which are the native seat of the Negro race. By what name is this region known in African geography?
18. What native races belong to the extreme south of the African continent?
19. Name the chief divisions of Africa, and make out a list of the British, French, German, and Portuguese African possessions.

### NORTHERN AFRICA.

The **BARBARY STATES**,<sup>1</sup> in Northern Africa, extend from the Atlantic along the northern shores of the Mediterranean Sea to the confines of Egypt. They include the Empire or Sultanate of **Morocco**, the French Colony of **Algeria**, the French Protectorate of **Tunis**, and the Turkish Vilayet or Province of **Tripoli**.

The total area of these North African countries is about 880,000 square miles, or 11 times as large as Great Britain and Ireland, while the population amounts to about 12 to 15 millions.

The inhabitants of Northern Africa include the **Berbers**, or, as they are called in Algeria, the **Kabyles**, who dwell in the mountains and in the scattered villages throughout the Atlas region; **Moors**, who are the inhabitants of the cities, and **Arabs**, who live in the more open parts of the interior, principally within their own encampments; **Negroes** and **Negroids** from the trans-Saharan countries; and **Jews**, chiefly the descendants of those driven at various periods from Europe. In Algeria and Tunis there are also a great number of European settlers, chiefly **French, Spaniards, Italians, and Maltese**. The Berbers are

1. So called from the *Berbers*, the original, or at any rate the earliest known, inhabitants of Northern Africa.

the descendants of the original inhabitants of this region, which is named after them. The Moors are a mixed race, sprung from unions between the natives and the Arabs and other invaders who have at various periods settled in this region.

The natives of Northern Africa are almost exclusively Mohammedans in religion. Their manners and usages, especially in Morocco, are in many respects barbarous, or indicate, at the best, but a low degree of civilisation.

Throughout Northern Africa the great features of nature are nearly uniform. The chains of the Atlas stretch through the entire length of these countries, but only attain any considerable height within Morocco.

The plains between the Atlas and the sea, and the valleys that are included within the mountain region, are the most fertile portions of the territory. The hill-sides, towards the Mediterranean and the Atlantic, are luxuriantly wooded. Their southern slopes pass gradually into the arid region of the Sahara.

This portion of the African continent has no perennial rivers of any magnitude.<sup>1</sup> There are numberless winter torrents, but few of them preserve a continuous flow of water. The lakes which occur are chiefly to the south of the Atlas Mountains, and are little more than salt marshes.<sup>2</sup>

The climate is warm and generally healthy, but the whole region is exposed, on its southern borders, to the hot winds of the adjacent Sahara. The rains are copious, but confined to particular seasons, and the soil, wherever sufficient moisture is obtained, is luxuriantly fertile.

The industries of Northern Africa are not considerable. The preparation of *morocco leather* (from the skin of the native goat) is a pursuit in which the inhabitants excel. The larger portion of the whole region is pastoral, *sheep* and *goats* being very numerously reared.

The grain called *dhurra*, or millet, is extensively grown; *wheat*, *barley*, and *maize* are cultivated to a less extent. In Algeria, the cultivation of the *vine*, *cotton*, *tobacco*, the *cochineal-tree*, and *indigo* is successfully pursued.

The productions of Northern Africa include *wool*, *wine*, *cereals*, *alfa* or *esparto grass*, *gum*, *bees'-wax*, *dates*, *olive oil*, and *goat skins*. These are exported in exchange for European manufactures.

Northern Africa, like the countries of Western Asia, exhibits almost every where the traces of decay from a past condition of greatness and prosperity. The chief part of the countries enumerated above was included in the empire of ancient Rome, and the frequent remains of Roman roads, temples, theatres, and aqueducts—their ruins now overgrown with the luxuriant vegetation of a semi-tropical climate—bear testimony to the greatness of the Roman power. In the immediate neighbourhood of Tunis are the remains of *Carthage*—once the rival of Rome. Further to the eastward, within the province of Tripoli, are the ruins of the Greek cities which formed the ancient *Pentapolis*—the chief among them being *Cyrene* or *Grenah*, as it is now called.

1. **MOROCCO**,<sup>3</sup> the most westerly of the Barbary States, extends from the Mediterranean on the north to the Sahara on the south, and from the Atlantic on the west to Algeria on the east. The Empire, which includes not only the Kingdom of *Morocco* and *Fez* to the north of the Atlas, but also the territories of *Sus*, *Tafilet*, *Twat*, &c. to the south of that great range, has altogether an area of about 314,000 square miles, and a population variously estimated at from 5 to 8 millions.

1. The principal are the *Tensift* and *Sabu*, flowing into the Atlantic, and the *Muluya*, *Sheiff*, *Roumei*, and *Mejerda*, flowing into the Mediterranean.

2. The two largest expanses are the *Shott Mel-*

*ghir* in Algeria, and the *Shott Jerd* in Tunis. The eastern end of the latter is only about ten miles from the head of the Gulf of Kabes, and it is proposed to admit the sea-water by a canal.

3. Arabic, *Moghrib el Akza*, "The Far West."

Morocco is physically divided into (1) the "*Tell*," a strip of fertile land between the coast and (2) the *Steppe-land*, embracing the main and minor ranges of the *Atlas*, south and east of which is (3) the *Desert region* of the Sahara. The coast-districts are watered by the *Muluya*, which flows into the Mediterranean, and the *Sebu* and *Tensift*, which enter the Atlantic. The southern slopes of the Atlas are drained into the *Wady Draa*, which is full only in the rainy season.

The fertile coast-region is occupied by the ruling people, the *Moors*, who conquered the country in the latter part of the seventh century; the rest of the country is inhabited mainly by the *Berbers*, but there are also large numbers of *Jews* and *Negroes*. The vegetable productions comprise various grains—*wheat*, *barley*, *maize*—and *fruits*; agriculture, however, is in a very backward state. The principal articles of export to Great Britain are *almonds* and *wool*. Morocco is said to be rich in minerals, especially in *lead*, *copper*, and *tin*, but nothing is done to develop these sources of wealth. *Morocco leather* is manufactured at *Mequinez*. The chief ports are *TANGIER*, *TETUAN*, and *MOGADOR*. There are neither railways nor roads; goods are transported by mules or camels, and, as there are no bridges, the caravans are unable to cross the rivers when these are in flood.

The form of *government* is that of an absolute despotism—the authority of the Sultan—called by his subjects 'Emir-al-Mumenin,' or 'Prince of True Believers'—being entirely unrestricted in either religious or political affairs. Many of the Berber tribes are virtually independent and acknowledge no rule but that of their own chiefs. The chief *divisions* of the country are—the kingdoms of *Fez* and *Morocco*, and the tributary territories of *Sus*, *Draa*, *Taflet*, and *Twat*.

The chief *towns* of Morocco are the capitals—*Morocco* (50), *Fez* (70), and *Mequinez*, three inland cities situated within the plain at the western foot of the Atlas. *Fez* is, nominally, the chief capital of the empire, but the Sultan also resides alternately at the two other Imperial cities of *Morocco* and *Mequinez*. *Mogador* was formerly the chief port of Morocco. *Tangier* (20), another port of considerable importance, is at the entrance of the Strait of Gibraltar, immediately beside Cape Spartel. Most of the foreign trade of Morocco passes through *Tangier*. The fortress of *Ceuta*, opposite Gibraltar, is occupied by the Spaniards, to whom the adjoining town of *Tetuan* also belongs.

**2. ALGERIA**, the most important of all the colonial possessions of France, extends from the Mediterranean on the north to the Sahara on the south, and is bounded on the west by Morocco, and on the east by Tunis and Tripoli. It has an *area* of about 123,000 square miles, and a *population* of about 4 millions, exclusive of wandering Bedouin tribes.

Algeria, like Morocco, is physically divided into three regions:—(1) the fertile "*Tell*," extending inland from the Mediterranean to the (2) bare highlands of the Atlas region, beyond which is (3) the Algerian Sahara, the western part of which forms a rocky plateau, between 1,500 and 3,000 feet high, while the eastern part is a low plain, in some places considerably below sea-level. The chief rivers are the *Roumel* and *Sheliff*, both of which enter the Mediterranean. South of the mountains, the numerous periodical streams enter the *Shott Melghir*.

Only about one twenty-fifth part of Algeria is cultivated. In the inland regions south of the *Tell* the only arable tracts are the artificially formed "*oases*" around the Artesian wells sunk by the French. The vegetable productions of the *Tell* country are similar to those of Southern Europe, and much *wheat* and *wine* are now produced. The principal article of export to England is the "*alfa*" (or esparto grass), used for making paper. *Iron*, *lead*, and *copper* are

also largely exported. The total imports amount to about 9 millions sterling and the exports to about 8 millions a year. About three-fourths of the trade is with France—the direct trade with England amounts to a little over one million sterling a year.

Algeria, which is regarded more as a detached part of France than as a colony or dependency, is divided into the three departments of *Oran* in the west, *Algiers* in the centre, and *Constantine* in the east. Each district is subdivided into a Civil Department and a Military District. The whole colony was under strict military rule until 1871, when a civil government was established in the Tell country and in the settled inland districts.<sup>1</sup>

The chief towns of Algeria are Algiers, Oran, Bona and Constantine. **ALGIERS** (75), the capital of Algeria, rises in the form of an amphitheatre along the slope of a steep hill on the Mediterranean coast. A railway connects Algiers with the port of Oran (70), 220 miles to the west, and with that of Bona (80), 250 miles to the east. The railway to Bona is a branch from the main line which passes through Constantine (45), a strongly fortified town in the interior.

**3. TUNIS** is bounded on the north and east by the Mediterranean, on the west by Algeria, and on the south by Tripoli. Its average width, from east to west, is about 100 miles, and its area\* about 45,000 square miles. Its inhabitants, who are mainly *Kabyles* or Berbers and *Bedouin Arabs*, number about 1½ millions.<sup>4</sup>

Tunis is physically a continuation of Algeria—the "Tell" of the coast being similarly succeeded by the central highlands and the desert region beyond. The *Mejerda* rises in Algeria, but the greater part of its course is within Tunis. South of the mountain region is the *Shott Jerid*, a vast salt lake or swamp, whose surface is several feet below the level of the Mediterranean.

In proportion to its extent, Tunis possesses considerably more arable land than Algeria, and wheat, olive oil, and barley are largely exported. There are also considerable native manufactures (silk and woollen stuffs, pottery, leather, &c.). The principal article of export to Great Britain is *alfa*, or *esparto grass*, the best possible substitute for rags in the manufacture of paper. Most of the foreign trade of the country passes through **TUNIS**, the capital, which is connected by rail with its port of **Goletta**. Tunis has a population of 145,000 (of whom 80,000 are Jews), and possesses considerable manufactures of silks and woollen stuffs. Thirteen miles north-east of Tunis is the site of the ancient city of *Carthage*. **Kairwan**, 80 miles south of Tunis, is the ecclesiastical capital of Tunis, and has a magnificent mosque; it was anciently the capital of the Arabian empire in North Africa.<sup>5</sup> **Biserta** is an important port on the north coast. The total foreign trade averages 2½ millions sterling.

Until 1860, when the Bey granted a constitution, the form of government was a pure despotism. From 1575, the rulers of Tunis acknowledged the suzerainty of the Sultan of Turkey, but, in 1871, the Bey ceased to pay tribute to the Porte, and was made virtually independent. In March, 1881, French troops crossed the border ostensibly to punish the *Kroumirs* for their raids into Algeria. The ulterior object of the expedition, however, was the establishment of French supremacy in Tunis, and, in 1881-2, the Regency was placed under the protec-

1. The French declared war against the Bey of Algiers in 1830, and in July the same year Algiers was bombarded and taken. Two years later Bona was occupied. But the Arab tribes of Oran, under the brave Abd-el-Kader, now resolutely contested the advance of the French, and it was not until his capture in 1847 that the Tell country was subdued. The Kabyles of the interior highlands repeatedly revolted, and kept the French troops almost constantly engaged until 1864. After the suppression of the insur-

rection of 1870-71, a civil administration was granted to the coast provinces.

2. Bombarded by the English under Lord Exmouth in 1816. Taken by the French in 1880. Now much frequented as a winter health-resort.

3. Including that portion of the Sahara which is to the south of the Gulf of Kabes, and extends towards Ghadames.

4. In the 10th century, Tunis had 17,000,000 inhabitants, but in 1780 only about 5,000,000.

5. Kairwan was founded by the Arabs in a.d. 670.



tion of France, and its affairs are now practically administered by the French Foreign Office, through the French Resident stationed at the capital. The French army of occupation numbers 10,000 men.

4. **TRIPOLI**<sup>1</sup> is the most easterly and the least favoured of the Barbary States, and, politically, includes the adjoining territories of **Fezzan** and **Barca**. Although it has an area of half a million square miles,<sup>2</sup> the greater part of it is an absolutely barren desert.

The population of Tripoli is roughly estimated at 1,000,000, and consists mainly of **Berbers**, **Arabs**, and **Tibbus**. The only inhabited parts of Tripoli Proper are a narrow strip along the coast and the fertile valleys on the northern slopes of the *Gharian* and the *Black Mountains*. The productions include various kinds of grains and fruits, tobacco, cotton, &c. Most of the products, not only of Tripoli itself, but also of the Sudan, are exported from the capital, **TRIPOLI**, on the Mediterranean coast.

The large territory of **FEZZAN**<sup>3</sup> lies to the southward of Tripoli, and comprehends an area of considerable extent, which, though devoid of perennial streams, yet constitutes a kind of oasis, and is fertile by comparison with the desert region by which it is bounded on all sides, except the north. The chief town of Fezzan is called **Murzuk**. The principal commercial intercourse between Central Africa and the shores of the Mediterranean passes through Fezzan by way of Murzuk, which is on the direct line of communication between the city of Tripoli and the borders of Lake Chad.

**BARCA**,<sup>4</sup> the ancient *Cyrenaica*, lies to the east of Tripoli. Barca is a rocky plateau, of an average elevation of 1,500 feet. Its steep seaward slopes include many well-watered and fertile valleys. **Benghazi** (the ancient *Berenice*), the capital, is the second port of the province.

Tripoli has, since 1835, formed a *vilayet* or province of the Ottoman Empire; the Turkish governor resides at the town of **TRIPOLI** (30). Fezzan is ruled by a subordinate governor residing at **Murzuk**. From 1869 to 1872, Barca formed a distinct province, but in the latter year it was again attached to Tripoli.

#### EXAMINATION QUESTIONS ON NORTHERN AFRICA.

1. What four countries are embraced within Northern Africa?

2. What constitutes the chief natural features of this region?

3. What kind of climate has Northern Africa?

4. What races of people are found among the inhabitants of this region?

5. What form of religion prevails in Northern Africa?

6. Say what you know concerning the industries and productions of this part of Africa.

7. What remains of antiquity does Northern Africa exhibit, and to what period of antiquity do they chiefly belong?

8. Where are the remains of *Carthage* and *Cyrene*?

9. What are the chief physical features of Morocco?

10. Describe briefly the productions, industry, government, and chief towns of Morocco.

11. To what nation does Algeria belong? Describe its natural features.

12. What is the chief article of export to Great Britain?

13. Mention the chief events in the conquest of Algeria by the French.

14. Name the chief towns of Algeria. Why was Algiers taken by the French? Why is it much resorted to in winter?

15. How is Tunis bounded?

16. What are the chief productions?

17. State what you know of the invasion of Tunis by the French in 1881.

18. What territories are included in the Turkish vilayet of Tripoli? Name the capital of each.

1. Tripoli or Tripoli<sup>is</sup>, the "three cities:" from the three ancient towns of *Sabrata*, *Oea*, and *Leptis major*. The modern Tripoli occupies the site of the ancient *Oea*; *Zoara*, that of *Sabrata*; and *Lebda*, that of *Leptis major*.

2. Nearly 7 times the area of England and Wales.

3. Fezzan, the ancient *Phasania*, was conquered by the Turks in 1642.

4. Barca was colonised from *Cyrene*, a.c. 506, and formed part of the "Libya about Cyrene" mentioned in *Acts* ii. 10.

## EGYPT.

EGYPT is the lower portion of the Nile Valley, extending from the Mediterranean up to **Akasha** (a small place on the Nile, 70 miles south of **Wady Halfa**), a direct distance of 760 miles.

**EXTENT.**—The *area* of Egypt proper is officially estimated at 394,240 square miles, or nearly seven times that of England and Wales.

The total area—including the **Oases** in the Libyan Desert, the northern portion of **Nubia**, and the **Red Sea Coast** to **Ras Kasar**, 110 miles south of **Suakin**, together with the **Sinal Peninsula** and the **Land of Midian** in Arabia—is not far short of 500,000 square miles, of which the cultivated and settled area covers only 18,000 square miles, the rest being a desert, affording, at most, pasturage in a few favoured localities.

**NATURAL FEATURES.**—Egypt has two great natural features, the river *Nile* and the *Desert*. Cultivation is limited to the lands that immediately adjoin the former, and over which its inundations reach.

1. In its course through Egypt, except for the last 120 miles, the Nile flows through a narrow valley, which is strictly limited by high chains of rocks upon either side. These rocks, or rather hills (which reach in some places 1,000 feet above the valley), divide the cultivable land from the desert, which begins immediately beyond. This desert reaches in one direction to the shore of the Red Sea, and on the other side forms part of the great wilderness of Northern Africa.

2. A hundred and twenty miles above the sea the Nile divides into two branches, called respectively (from the names of the towns situated near their outlets) the **Rosetta** and the **Damietta** branches. The former is the more westerly, the latter the easterly arm, of the river. The two enclose between them an extensive *delta*.<sup>1</sup> The **Delta**—or **Lower Egypt**, as that portion of the country is called—consists of a broad and watered plain, crossed by numerous channels, natural or artificial. Above the **Delta**, the habitable part of Egypt is limited to the immediate valley of the river, which seldom reaches more than seven or eight miles across, between the bordering chains of hills upon either side. Egypt, therefore—in so far as its habitable portion is concerned—is a much less extensive country than it appears to be upon the map.

3. The Nile overflows its banks annually, the river beginning to rise above its ordinary level in the month of June, and continuing to rise daily until the latter end of September, at which time nearly the whole valley is laid under water.<sup>2</sup> The waters afterwards gradually retire within their proper bed, leaving behind them a fertilising deposit, to which the abundant harvests of Egypt are due. During the time of "high Nile" (as the season of inundation is called), only the rising grounds upon which the villages are mostly built are seen above the flood, and Egypt presents the appearance of a vast inland sea—many of the inhabitants living in rafts upon the water. This periodical rise of the Nile is caused by the abundant rains in Abyssinia and the highland regions to the southward.

1. A delta is the space enclosed between the various branches into which a river divides above its outlet. Such tracts of country necessarily assume a triangular shape, resembling the fourth letter of the Greek alphabet Δ (Delta), whence the term is derived. It was to the region enclosed between the different arms of the Nile that the term was originally applied by the

Greeks. It has become extended, in modern geography, to all similar tracts of land. The Danube, the Rhine, the Volga, the Ganges, the Indus, the Amazon, and a great number of other rivers, form deltas. The extent of these tracts of land is continually increased by the deposition of sediment where the river meets the sea.

2. The rise at Cairo is about 23 feet.

**Climate.**—Egypt has a warm and dry climate. Except in the Delta, rain seldom occurs—in Upper Egypt only at long intervals, which are sometimes of two or three years' duration. The intense dryness of the air has been the means of preserving from decay the monuments of ancient art in which Egypt abounds.

**INHABITANTS.**—Egypt has upwards of 7 million inhabitants, the vast majority of which are of the Arab race, the offspring of the Arab settlers in Egypt within the period that immediately succeeded the Mohammedan conquest in the 10th century.

The Egyptian Arabs constitute the agricultural population or *fellahtn*, as they are called. The descendants of the ancient Egyptian (or *Coptic*) race are about 500,000 in number. There are *Turks* (the ruling people), with *Armenians*, *Syrians*, *Jenos*, and *Franks* or Europeans, in the towns. The foreigners in Egypt number about 100,000.

**Religion.**—The Egyptian people are almost uniformly followers of the Mohammedan religion, except in the case of the Copts—descendants of the ancient Egyptians—who form a Christian Church, under the Patriarch of Alexandria, who resides at Cairo.

**INDUSTRY.**—The industry of the Egyptian population is almost exclusively devoted to the culture of the soil. The inundations of the Nile fertilise the land, and the limits reached by the waters of the river mark the extent of cultivation.

Abundant harvests of wheat, *dhurra*, and other grains are raised, and cotton is grown to a considerable extent in the plains of the Delta. Flax, sugar, hemp, tobacco, coffee, saffron, mulberries, and dates all enter into the list of Egyptian agricultural produce. The cotton and surplus corn of Egypt are exported chiefly to England, and the manufactured productions of Western Europe are imported in return. The trade of Egypt, both foreign and internal, has vastly increased since the construction of the Alexandria and Suez Railway, which re-opened the ancient route between Egypt and India, but the transit trade over this line declined after the opening of the Suez Canal, which is now the great highway of communication between Europe and the East.<sup>1</sup>

**Commerce.**—The foreign trade of Egypt, which amounts to about 20 millions sterling a year, is carried on chiefly with Great Britain, which takes two-thirds of the exports and sends nearly one-half of the imports. About 9 per cent. of the trade is carried on with Turkey, and 8 per cent. with France and Austria-Hungary.

The principal articles of export from Egypt to Great Britain are raw cotton and cotton seed, wheat, and beans, with tobacco, sugar, and rice. Nearly the whole of the foreign trade of the country passes through ALEXANDRIA, though a large business is also done at PORT SAID, SUEZ, DAMIETTA, and ROSETTA.

**GOVERNMENT.**—Egypt is nominally a dependency of Turkey, but the *Khedive*, as the present ruler is styled, is virtually inde-

1. By the Convention of 1867, the canal has been neutralised, and is exempted from blockade. Vessels of all nations, whether armed or not, can pass through it in peace or war.

The canal was commenced in 1859 and completed in 1869. Its total length, from Port Said, on the Mediterranean (about 40 miles east of Damietta), to Suez, at the head of the Red Sea, is 67 miles—46 miles of actual canal and 21 miles of lakes. It is sufficiently deep to allow vessels drawing 25 feet 7 inches of water to pass through, but vessels cannot pass each other except at the

"sidings." It is being widened sufficiently, however, to obviate this inconvenience. By the use of the electric light, vessels can now pass through it by night as well as by day. The harbour at Port Said was artificially formed, and the entire cost of the canal and subsidiary works was over 20 millions sterling. In 1876, the British Government bought the Khedive's shares for \$4,000,000. Nearly 4,000 vessels pass through the canal every year, and more than three-fourths of them are British.

pendent of the Porte. The government of Egypt is carried on under the direct control of England, and the country is still occupied by British troops.<sup>1</sup>

**DIVISIONS and TOWNS.**—The two great administrative divisions are those of “Masr el Bahri” or **Lower Egypt**—the Nile Delta—and “El Said” or **Upper Egypt**, which extends southwards from the Delta to Akashe on the Nile, 70 miles south of Wady Halfa. The only two really large cities of modern Egypt are *Cairo* and *Alexandria*. The former is the capital of the country, and the latter its chief seaport.

**CAIRO** (368) stands on the right or eastern bank of the Nile, a short distance above the head of the Delta. It owes its origin to the Arab conquerors of Egypt, by whom it was founded in the year 970, and it is still an important centre of traffic between the East and the West, but its importance in this respect has greatly declined since the opening of the Suez Canal, previous to which the “overland route” passed from Alexandria on the Mediterranean coast, to Cairo, and thence to Suez, at the head of the Red Sea.

**ALEXANDRIA** (209) is a city of much older date. Its name commemorates that of Alexander the Great, by whom it was founded in the year 332 B.C. It at once became a flourishing emporium of commercial intercourse, and grew rapidly into a splendid city, and ultimately ranked only second in place among the cities of the Roman world. It was long the chief centre of Greek learning under the Ptolemies and of early Christianity in the second and third centuries. Alexandria was taken by the Mohammedans in 640, after a siege of 14 months. In modern times, the city flourished until the outbreak of the rebellion headed by Arabi Pasha, when the forts were bombarded by the British fleet, and the town was fired and pillaged by the rebel troops and Arabs. Under the British occupation it has, however, revived, and is daily becoming of greater importance as the centre of the trade of Egypt with foreign countries. *Tel el Kebir*, in the Delta, was the scene of the decisive defeat of Arabi Pasha by the British in 1882.

**Rosetta** (18) on the western, and **Damietta** (34) on the eastern, mouth of the Nile, were formerly important seaports. **Suez** (12), on the Gulf of Suez, at the head of the Red Sea, belongs to Egypt, though it is Arabian rather than Egyptian by geographical position. It is now the southern terminus of the *Suez Canal*, which, crossing the isthmus of that name, connects the Mediterranean with the Red Sea. **Port Said** (17), on the Mediterranean, to the east of Damietta, is the northern terminus of the Suez Canal. **Siut**, in Upper Egypt, was formerly the terminus of the Nile Valley Railway, but it is now open to **Girgeh**, and it has been proposed to continue it to Assuan, 220 miles further up the Nile. The Nile, however, is freely navigable, beyond Siut, as far as the Second Cataract, and a railway has been constructed along the right bank of the river from **Wady Halfa** to **Akashe**, 70 miles further to the south.

1. Mehmet Ali, the founder of the present dynasty, after having in 1811 massacred the Mamelukes at Cairo, and thus made himself absolute ruler of the country, revolted from Turkey and in 1809 his son, Ibrahim Pasha, invaded and conquered Syria. Syria, however, was restored to the Porte, but the succession to the throne of Egypt was made hereditary. The Sultan's authority in Egypt gradually declined, and in 1868 the title of “Khedive-Misr,” or King of Egypt, was granted to the Pasha. In 1873, the Khedive obtained the right of concluding treaties with foreign powers and maintaining an army, so that he is virtually an independent sovereign. The suzerainty of the Sultan, however, is still acknowledged by the payment of an annual tribute of about £ E 670,000. (1 £ Egyptian equals

£10s. 6d. sterling). In 1882, a military rebellion headed by Arabi Pasha broke out, and after its suppression it was found necessary to continue the occupation of the country by British troops, in consequence of a successful rising against Egyptian authority in the Sudan, under the Mahdi, a religious enthusiast, claiming to be the “Messiah” of Islam, and which resulted in the abandonment of the Upper Nile Provinces and Nubia, to the south of Wady Halfa. Egypt itself, however, has advanced greatly in wealth and prosperity under the British occupation.

2. Rosetta is celebrated for the discovery made at it of what is known as the “Rosetta Stone,” which has enabled Egyptologists to decipher the hieroglyphics on the monuments and temples of ancient Egypt.

The objects regarded with most interest in Egypt are the works of a past age. The numerous antiquities that are found within the Nile valley supply an unending field of study to the admirer of ancient art. Amongst these monuments of bygone greatness are pyramids, tombs, temples, palaces, colossal statues, obelisks, sphinxes, and many other works.

The pyramids of Ghizeh and the ruins of Thebes are the two more special localities which possess the kind of interest here referred to. The *Pyramids* are within a few miles' distance of Cairo, on the western bank of the river, and the well-known figure of the Sphynx, of colossal magnitude, is in their neighbourhood. The *Ruins of Thebes* are in a higher part of the Nile valley, within Upper Egypt, and are spread over a vast space upon either side of the river. *Assuan* (the ancient *Syene*), on the right bank of the Nile, is 150 miles above the ruins of Thebes. The valley of the Nile becomes here contracted to a mere ravine, and a ledge of rock which crosses the bed of the river immediately above Assuan forms what is called the First Cataract, which, like all the so-called cataracts of the Nile, is really a mere rapid.

The Libyan Desert, to the westward of the Nile, contains several *oases*, which are regarded as forming part of Egypt. The largest of these (distinguished as the Great Oasis), is immediately west of the ruins of Thebes. The others are known as the Little Oasis, the Western Oasis, and the Oasis of Siwah. The last is the most northwardly of the number, and lies at a further distance than the others from the Nile. It contains a celebrated fountain—the supposed "Fountain of the Sun"—and the ancient temple of Jupiter Ammon, which Alexander the Great visited, was situated in this oasis.

## THE EASTERN SUDAN.

The EASTERN SUDAN includes the valley of the Nile, from the Great Lakes to the Egyptian frontier, and also the territorial divisions known as *Kordofan* and *Darfur*, to the west of the Nile valley. This vast territory, which is now within the British Sphere of Influence, has an area of about 1 million square miles.

**Natural Features.**—The great features of this region, like those of Egypt, are the Nile Valley and the Desert. In Nubia, the two branches of the Nile—the *Blue Nile* (*Bahr el Azrek*) and the *White Nile* (*Bahr el Abiad*)—unite their waters at the point where the town of Khartum is situated. The united stream is joined, some distance below, by the *Atbara*, which rises in the highlands of Abyssinia to the south-eastward. On the southern frontiers are the great lakes—the *Victoria Nyanza* and the *Albert Nyanza*—the perennial reservoirs of the White Nile.

The lands watered by the Blue Nile and the Atbara exhibit a diversified surface, with alternate forests and savannahs. Below the junction of the Atbara, cultivation is limited to the immediate banks of the Nile. The valley of the Nile becomes there a mere ravine, bordered on either hand by rocky ridges, as in Egypt, and of much narrower limits than in the latter country. In some places, where openings occur in the bordering mountains, the sands of the adjoining desert come close up to the river's bank.

**Climate and Productions.**—The climate is more tropical than that of Egypt, and the vegetation bears a great resemblance to that of the Torrid Zone, within which, indeed, nearly the entire country is situated; but by far the larger part of Nubia is an arid wilderness, and even the watered districts are tenanted principally by the wild beasts of the forest.

Groups of the *acacia*, the *mimosa*, and the *date-palm* mark the course of the Nile, and the *sugar-cane* grows wild in the neighbourhood of its banks. The *senna-plant* is a production of Nubia. Vast forests, among which the *ebony-tree* and other hard woods are found, occur in the south-eastern division of the country.

**Inhabitants.**—This vast territory is but thinly inhabited, the total population being probably under 10 millions (an average of only 10 to the square mile), consisting chiefly of *Arabs* and various *Negro tribes* and mixed races.

**Industry.**—The scattered villages, which occur at intervals along the banks of the Nile in Nubia and in the more fertile tracts further south, mark the abodes of an agricultural and pastoral population. The *dharra* grown in their fields, with the fruit of the *date-palm*, and *tobacco*, *cotton*, *indigo*, and various *gums*, are almost the sole products of Nubia and the Eastern Sudan.

**Commerce.**—The only commerce which the country possesses is a transit trade. The caravans, which, until the Mahdi revolt, conveyed the produce of Central Africa to the bazaars of Cairo, passed through Nubia, and the traffic in slaves then constituted the most important item in the trade carried on by the Sudanese Arabs. The most valuable article of export is *ivory*, obtained from the vast herds of elephants that roam over the magnificent "park-like" plains and savannahs of the Upper Nile.

**TOWNS.**—Upper Nubia contains the town of **KHARTUM** (70), which is the largest place in this portion of the Nile and the centre of authority for the whole country, as well as for the adjoining regions of the Sudan. Khartum stands at the junction of the White and Blue Niles, and will be for ever famous for its heroic defence by, and tragic death of, General Gordon. On the opposite side of the Nile is the fortified station of **Omdurman**. **Sennar**, also in Upper Nubia, is on the Blue Nile. **Metammeh** and **Abu Klea**, on the Nile below Khartum, are memorable as the scene of victories won by the British over the forces of the Mahdi during their advance to the relief of General Gordon. **New Dongola**, on the left bank of the Nile, lower down its course, is one of the most thriving of Nubian towns. The only seaport of Nubia is **SUAKIN**, a small place on the Red Sea, which is garrisoned by Egyptian troops. The caravan-route from this port across the desert, and along which arrangements had been made to lay down a railway (but which was abandoned after only a few miles had been completed), leads to **Berber**, a small place on the right bank of the Nile, not far from its junction with the *Atbara*. **El Obeid**, the capital of Kordofan, was the headquarters of the Mahdi, who advanced thence on Khartum. In *Equatoria* (Emin Pasha's Province), the chief stations are **Wadelai**, on the Nile, 20 miles north of the Albert Nyanza, **Dufilé**, and **Lado**.

Previous to the revolt of the Mahdi in 1882, the whole of the *Nile Basin* (with the exception of the upper portions of the basins of the Blue Nile and the *Atbara*), from the Great Lakes of Equatorial Africa to the southern frontier of Egypt, was included in the **EGYPTIAN SUDAN**,<sup>1</sup> and was subject to the Khedive of Egypt, who ruled it through a *Governor-General*, resident at Khartum.

The authority of the Khedive extended over large territories in this region, and embraced—(1) *Kordofan*, lying west of Upper Nubia, conquered by Mehemet Ali in 1821; (2) *Darfur*, annexed to Egypt in 1875; and (3) the *Eastern Sudan* and the *Red Sea Coast*, comprising the territories west and north of Abyssinia. The annexation of the provinces north of the Abyssinian plateau was followed, in 1866, by the occupation of the port of *Massowa* and the adjoining coast-district, thus completely isolating Abyssinia and depriving it of its only outlet to the sea. South of *Massowa*, also, the Egyptian dominions were extended by the annexation of the *Danakil* country, between Abyssinia and the Red Sea, and by the occupation of *Berbera* (in 1878), *Zeila* and *Harrar* and adjoining territories (in 1876). (4) Along the *Upper Nile Valley* the Egyptians extended their conquests still further south, and established military stations at *Gondokoro* (afterwards replaced by *Lado*, on the other side of the Nile), *Wadelai*, and other places.

The Egyptian power on the Upper Nile being overthrown by the **MAHDI**, a Mohammedan fanatic of Kordofan, a British expedition was sent up the Nile in 1884, for the purpose of liberating the Egyptian garrisons at Khartum and other towns invested by the Arabs. Khartum was held by *General Gordon*, who, early in 1884, had been sent out by the British Government with full powers to organize the

1. The Egyptian Sudan was divided into 12 provinces, namely, Dongola, Khartum, Suakin, Massowa, Kordofan, Darfur, Sennar, Equatorial Province, Fazoili, Bahr el Ghazal, Zeila, Harrar, and Berbera, and had (according to a MS.

note of the late General Gordon) an area of 950,000 square miles and a population of 10,400,000. These provinces were governed by European or Egyptian Lieutenants under a Governor-General, resident at Khartum.

evacuation of the country, but which he found it impossible to effect. After many fierce contests with the Arabs, the British vanguard approached Khartum in January, 1885, only to find that it had fallen into the hands of the Mahdi, and that its heroic defender had been killed and his faithful followers massacred. Thereupon the British Government determined to quell the insurrection at any cost, and reinforcements were sent out to open up the Suakin-Berber route, the forces under Lord Wolseley being concentrated on the Nile and remaining on the defensive. Owing, however, to the crisis in Afghanistan, and to the apparently successful rising against the Mahdi in Kordofan, the forces in the Eastern Sudan were withdrawn, an Egyptian garrison being left at SUAKIN. The southern frontier of Egypt has since been extended to AKASHE, 70 miles south of WADY HALFA, at the Second Cataract of the Nile, and Egypt still retains the Red Sea Coast for 110 miles to the south of Suakin. At present, the power of the *Khalifa*, as the Mahdi's successor is called, extends from Dongola in Nubia to the Albert Nyanza, and from the Bahr el Ghazal to the western borders of Abyssinia. The Mahdist empire has no outlet on the coast—the port of Suakin and the coast for 110 miles to the south being effectively occupied (under British supervision) by Egypt, while the rest of the Red Sea littoral to the Strait of Bab el Mandeb is now included in the Italian colony of *Eritrea*.

**KORDOFAN** lies between the Nile and Darfur. It has an area of about 100,000 square miles and a population of not more than 300,000.

For 60 years (that is, since its conquest by Mehemet Ali in 1821 until the Mahdi revolt in 1882) this country formed part of the Egyptian dominions. Kordofan was the great stronghold of Mahdism, and it was from EL OBEID, the capital, that the Mahdi led his fanatical followers against Khartum in 1885.

**DARFUR**, situated between Kordofan and Wadai, has twice the area and five times the population of Kordofan.

The capital, EL FASHER, is on the great caravan route from Wadai to Egypt, along which for many centuries an annual caravan conveyed *ivory* and *gum*, *ostrich feathers* and *slaves* to Egypt, returning thence with valuable *woven fabrics*, *arms*, and *metal wares*. But the Mahdi revolt stopped commercial as well as all other communications with Egypt.

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## ABYSSINIA.

ABYSSINIA includes the loftiest of all the plateau-lands of Africa. The country is, in fact, a succession of high tablelands, crossed by lofty mountain chains, and intercepted by deep ravines. Some of the mountains reach 15,000 feet above the sea and are covered with perpetual snow.<sup>1</sup>

Abyssinia includes the large lake of *Dembea* (or *Tzana*), from which issues the *Bahr el Azrek* or *Blue Nile*. The upper course of the *Atbara*, or *Black Nile*, is also within this region. The *Hawaash*, another considerable river, flows to the eastward and is lost in a salt marsh.

**Climate.**—The climate of Abyssinia is intensely hot in the lower grounds, but is temperate and healthy on the upland plains of the interior. At *Gondar*, the mean temperature is about 60° Fahr.

**Productions.**—The mineral resources of the country are said to be considerable, but they are as yet undeveloped. The soil is fertile, and *cotton*, *sugar*, *coffee*, &c., are produced in the lower valleys. On the higher grounds (from 5,000 to 9,000 feet) the various kinds of *grain* and *fruits* are extensively grown, while on the highest regions (up to 14,000 feet) large herds of *cattle* and *sheep* are reared.

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1. The culminating point is *Ras Dashan* (15,936 feet), in the Samen range, 70 miles north-east of Gondar.

**INHABITANTS.**—Abyssinia Proper is estimated to have an area of about 130,000 square miles, and a mixed<sup>1</sup> population of perhaps 3 or 4 millions.

Numerically, the **Hamites** predominate, but politically, the **Semites** of Tigre, Amhara, and Shoa, who emigrated from Arabia at some unknown period, are, and always have been, supreme. They call themselves *Itiopiavians* or Ethiopians, and still speak a dialect of the old Ethiopic language. They were converted to Christianity in the 4th century, and have since remained members of the Alexandrian Church. The *Abuna*, or head of the church, is always a Copt appointed and consecrated by the Patriarch of Alexandria, but he is not so powerful as the native head of the religious orders. The **Falashas**, or Abyssinian Jews, claim descent from Jews who brought the Mosaic law to the plateau long before the Christian era, but they are probably an aboriginal tribe converted at a very early date by Jewish missionaries. The secular and regular clergy instruct a limited number of children in grammar, choral singing, poetry, and the recitation of Bible texts.

**GOVERNMENT.**—The ancient empire of Abyssinia or Ethiopia was formerly a powerful State, governed from the earliest times by an absolute ruler, styled the *Negus Negusti* or “King of Kings.” The country is divided into three great provinces, **Tigre** in the north, **Amhara** in the centre, and **Shoa** in the south, and the supreme authority has frequently shifted from one province to another.

For a time, the ruler of Shoa claimed the sovereignty of the country, but Theodore, a robber chieftain of Amhara, having seized the supreme power, was proclaimed king of Abyssinia. Theodore having arrested and imprisoned British subjects in 1863 and refused to release them, an expedition under Sir R. Napier was sent against him. The British forces landed in January, 1868, at **Annealey Bay**, and advanced towards the fortress of **Magdala**, which was stormed and captured. During the assault, Theodore killed himself. Soon after the withdrawal of the British forces, Prince Kassai of Tigre claimed the throne, and, having defeated a rival chieftain, was crowned king as Johannes II. in 1872. The Khedive's troops entered Abyssinia in 1874, but were defeated, and in 1876 evacuated the country. On the death of Johannes II. in 1889, Menelek II., king of Shoa, became the supreme ruler of Abyssinia, and in May of the same year he signed a treaty by which Abyssinia virtually became an Italian Protectorate.

Of the numerous towns, few of which, however, have a population of over 5,000, the principal are **GONDAR**, the capital of Amhara, an ancient city on the uplands near the shores of Lake Dembea; **Adowa**, the capital of Tigre; the holy city of **Axum**, the “city of Abraham,” the ancient capital of the Ethiopian empire, and still the crowded resort of Itiopiavian priests and pilgrims; **Licheh**, the capital of Shoa; **Ankobar**, the religious metropolis and most populous city in Shoa, 8,198 feet above the sea; **Debra Tabor** or “Mount Tabor,” a mountain fortress of the Negus, at an elevation of over 8,500 feet; **Magdala**, King Theodore's mountain-fortress, stormed by the British in 1868; and **Makellah**, the present capital of the Negus.

#### QUESTIONS ON THE NILE COUNTRIES.

1. What three countries are comprehended within the region watered by the Nile? Point them out upon the map.

2. How is Egypt bounded, and what are its two great natural features?

3. What part of Egypt is known as the Delta? What is meant by the term *delta* in a geographical sense?

4. By what is the Nile, in its course through Egypt, distinguished?

1. Hence the name of the country, Abyssinia, from the Arabic *abesâh*, “confusion,” i. e., in reference to its mixed population.



5. What kind of climate has Egypt?
6. To what race do the majority of the people of Egypt belong? What are their chief pursuits?
7. In what way is the rise of the Nile connected with the industrial pursuits of the Egyptian population?
8. What articles of produce does Egypt furnish to other lands?
9. How is Egypt divided? Point out these divisions on the map.
10. Which are the two largest among the cities of Egypt? Point them out on the map.
11. To what circumstance is the commercial and political importance of Egypt in the present day mainly due? Describe the Suez Canal.
12. By whom was the city of Alexandria founded? In what year?
13. What locality of historic note is in the vicinity of Alexandria?
14. Where are Rosetta, Damietta, Suez, Port Said, Siont, Assuan, Wady Halfa, and Akashe?
15. What objects of interest, the works of a former age, does Egypt contain?
16. What oases are included within the limits of Egypt?
17. Under what government is Egypt?
18. What countries are included in the Eastern Sudan? What are its chief natural features?
19. What kind of climate has the Eastern Sudan? Name some of its vegetable productions.
20. State what you know concerning the inhabitants and commerce of this region.
21. Name the chief towns. Which of them is the capital? Point to its place on the map. What do you know of Kordofan and Darfur?
22. How is Abyssinia situated with regard to the Eastern Sudan? By what sea is it bounded to the eastward?
23. What kind of a country is Abyssinia as to natural features?
24. Say what you know concerning the people and productions of Abyssinia.
25. Into what three States is Abyssinia divided? Name the chief towns in each. What European Power claims a Protectorate over Abyssinia?

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## THE SAHARA.

The immense region of Northern Africa, to which the name **Sahara**—an Arabic word meaning “desert”—is applied, extends from the Atlantic to the shores of the Red Sea, a distance of over 3,500 miles, and from the southern slopes of the plateaux of Barbary and Barca and the coast of the Mediterranean in Tripoli to the grass-lands which border the fertile and well-watered countries of the Sudan.

This great desert region has an area of over 3 million square miles, and a population of not more than 3 millions of pastoral nomads and robbers.

The two great natural products of the Sahara are the **date-palm**, which furnishes the staple food of the people, and **salt**, which is extensively produced at **BILMA**, on the route from Tripoli to Bornu, and at **TAODENI**, on the route from Morocco to Timbuktu. **Dates** and **salt**, with **ostrich feathers**, **gold dust**, and **slaves**, are, in fact, the only commercial products of this vast region.

The commerce of the Sahara is carried on by camel-caravans which cross the desert by certain routes, the directions of which are determined by the positions of the wells and oases. The trade consists chiefly in the transport of ostrich feathers, gold dust, and ivory to the Mediterranean ports from the Sudan—the caravans returning with cotton goods and other textile fabrics, cutlery, arms, and trinkets of all sorts. The most frequented route passes from Tripoli through **MURZUK** in Fezzan, and by the salt mines of **BILMA** (which furnish an article of considerable trade) to Kuka on Lake Chad.

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## THE SUDAN.

The name “Blad es Sudan,” or “Country of the Blacks” of the old Arab geographers, was applied to the vast region to the south of, and almost co-extensive with, the Sahara, and the term is still used to indicate the belt of fertile and well-watered countries, which lie within the zone of tropical rains and form a startling contrast to the sterile desert, which stretches between them and the countries bordering on the Mediterranean.

In its widest application, the **Sudan** includes the entire region between the Sahara on the north and the Guinea Coast and the northern watershed of the

Congo on the south, thus extending right across the continent, from the Atlantic on the west to the Red Sea and Abyssinia on the east, a distance of considerably over 3,000 miles.

**NATURAL FEATURES.**—The great natural features of the Sudan are the Senegal and the Gambia in the *Western Sudan* or Senegambia, the Niger and Lake Chad in the *Central Sudan*, and the Upper Nile and its tributaries in the *Eastern Sudan*.

The Senegal, the Gambia, and the Niger or Joliba, all take their rise near each other in the Futa Jallon Highlands in the Western Sudan. The Senegal and the Gambia flow westwards into the Atlantic; the Niger bends to the eastward and then flows south into the Gulf of Guinea. Unlike the other great rivers of Africa, these three rivers are navigable for considerable distances inland, unobstructed by either rapids or falls, and form, therefore, excellent channels of communication with the interior.

Lake Chad is a shallow expanse of much greater extent when the Shari and other streams which flow into it are in flood than during the dry season.

The *climate* of the Sudan is thoroughly tropical, and portions of the interior are probably among the hottest on the globe. But the inland countries of the Sudan do not appear to be unhealthy, and are at any rate free from the pestilential malaria which proves so deadly to Europeans on the coast. The rains and the season of drought succeed one another with undeviating regularity, the rainy season coinciding with the position of the sun to the north of the Equator.

**INHABITANTS.**—The inhabitants of the Sudan are not exclusively of Negro race. A large proportion of them are of mixed descent, partly of Arab or Berber origin. The latter are known as Fulahs or Fellatahs, and are most numerous in the neighbourhood of Lake Chad and to the eastward of the Niger; the pure Negro race is found to the west of that river.

The Fulahs occupy a position which is politically and socially in advance of that of the pure Negro races, and have carried with them into the heart of the African continent the rites of the Mohammedan worship and the precepts of the Koran. The Negroes themselves, when not converted to Mohammedanism, are uniformly heathens, given up to a degrading *fetichism*, that is, the adoration of particular objects invested by them with a sacred character, and known as *fetiches*.

It is in the Mohammedan countries of the Sudan that the African race has reached its highest stage of development independent of European influence, and even the least advanced of these Negroid Mohammedans are not barbarians—at any rate not in the worst sense of the term. The Sudanese people, generally, have settled habits of life, they cultivate their fields, weave cotton cloth with some skill and dye it of bright colours. Many of their towns are of considerable size, and the courts of their native monarchs display various attempts at a rude kind of splendour and dignity.

The great obstacle to the advancement of the Negro has been the slave trade. The numerous divisions, into which Negro Africa has always been divided, formerly engaged in frequent warfare with one another, for the express purpose of taking captives to be sold to the slave dealer; slave-hunting expeditions are still, unhappily, fitted out by the most powerful chiefs against their weaker neighbours, the villages of the latter are burned, the children and the aged slaughtered, and the able-bodied marched in gangs across the desert, or down to the coast, to be sold into slavery. The slave-trade has always been the bane of the Negro population of Africa, and the substitution of a more legitimate commerce is, therefore, the only means of suppressing this cruel and iniquitous traffic.

**PRODUCTIONS.**—The commercial productions of the Sudan are chiefly *gold-dust, ivory, and ostrich feathers*—besides *slaves*, who formerly constituted a much more important item of trade than at present.

A great deal of trade is carried on between the Sudan and the countries on the Mediterranean coast by means of *caravans* which cross the Sahara. The merchants engaged in this trade are principally Moors. Articles of European manufacture are thus introduced into the heart of the African continent.

**DIVISIONS.**—The three great divisions of the Sudan are :—(1) The *Eastern Sudan*; (2) the *Central Sudan*; and (3) the *Western Sudan*.

I. **THE EASTERN SUDAN** has been already described (*see pp. 275-7*).

II. **THE CENTRAL SUDAN**, a purely conventional term, is applied to the region lying to the south of the Sahara, and extending between the French or Western Sudan and the Eastern Sudan.

The **Central Sudan** is divided into a number of Mohammedan Negroid States, the limits of which are undefined, except where they are marked by natural features such as Lake Chad, the Shari, and the Niger. **Wadai** and its tributary States lie to the east of Lake Chad; **Bornu** and **Sokoto** are between Lake Chad and the Niger.

The Sultanate of **WADAI**, with the tributary States of **Kanem** and **Bagirmi**, occupies the entire region between Darfur and Lake Chad, and extends from the Sahara on the north to the Shari-Mobangi water-parting on the south.

The mountains, steppes, savannahs, and deserts of Wadai are occupied by some 5 millions of Arabs and Negroes. The Sultan, who resides at **ABESHER**, rules Negro and Arab alike with relentless severity. His army, about 7,000 strong, is chiefly employed in levying tribute in kind (slaves, horses, cattle, honey, corn) from the provinces and vassal States.

**KANEM**, a vassal State of Wadai, is on the northern side of Lake Chad. The people are allied to the Tibbus. The capital is **Njimi**, but the agent of the Sultan of Wadai resides at **Mao**, to the north-west of **Njimi**.

**BAGIRMI**, also a tributary State of Wadai, lies to the south-east of Lake Chad, and includes the low-lying plains and marshes of the Lower Shari. The handsome and warlike, but also bloodthirsty and cruel, people of **Bagirmi** are Mohammedan Negroes, and, prior to the capture of their capital, **MASSENA**, in 1871, by the Sultan of Wadai, were independent.

**BORNU**<sup>1</sup> is a lovely and fruitful country, to the west and south of Lake Chad. It has an area of perhaps 50,000 square miles, and a population of about 5 millions, chiefly **Kanuri** Negroes.

The **Kanuri**<sup>2</sup> Negroes of Bornu are regarded as "the most cultured people in Central Africa, and their woven fabrics, pottery, and metal ware are highly prized throughout the Sudan." Their Sultan has an army of 30,000 men partly armed with rifles, a strong force of cavalry, and even some artillery.

There are several towns with over 10,000 inhabitants in Bornu Proper and the larger tributary States, and **KUKA** or **Kukawa**, the capital of the Sultanate,

1 i.e., *Bar-noa*, or "The Land of Noah." | 2 i.e., "People of Light."

on the western shore of Lake Chad, has a population of from 50,000 to 60,000, and is one of the greatest markets in the Central Sudan.

The Empire of **SOKOTO**, which is practically a British Protectorate, is the largest and most populous of all the States of the Central Sudan, and includes all the former Hausa States between Lake Chad and the Niger, together with the tributary States of **Adamawa**, **Gando**, **Borgu**, **Nupe**, and other smaller "kingdoms" in the Niger-Benué region.

The agricultural resources of this fertile and well-watered region are considerable—rice and other cereals, dates and honey, are largely exported, and much cotton is grown, for the Hausa people are skilful in manufacturing it into durable material (which is coloured with indigo and other native dyes), and they also make excellent leather goods (shoes, sandals, harness, &c.).

The Emperor of Sokoto has conferred on the Royal Niger Company full sovereign power throughout a large part of his dominions, and complete jurisdiction—civil, criminal, and fiscal—over non-natives throughout the remainder. He governs directly but a comparatively small part of the Empire; the rest is ruled by vassal kings and chiefs who pay him an annual tribute.

**Kano** (35), the old Hausa capital, and still the commercial metropolis of the Central Sudan, lies about midway between Kuka, the capital of Bornu, and **Sokoto**, the former chief town of the Fulah conquerors of Haussaland. Sokoto is no longer the capital of the Empire, and its 100,000 inhabitants have dwindled to 10,000—scarcely half the population of **WUENO**, the present capital. Both towns are on the Sokoto River, an affluent of the Niger.

**Gando**, another large town, is on the same river, about 90 miles south of Sokoto. It is the capital of the kingdom of **GANDO**, which extends on both sides of the Middle Niger Valley. **Niki**, on the Oli River, a western affluent of the Niger, is the capital of **BORGU**, another vassal State of Sokoto. Borgu lies entirely to the west of the Niger, and to the south of Gando. The Oli River divides Borgu from the kingdom of **NUPE**, also a Native State tributary to Sokoto, on the Middle Niger.

The basin of the Upper Benué is within the kingdom of **ADAMAWA**, the last conquest of the Fulahs to the south-east. This magnificent country is bounded on the north by **Bornu**, and on the north-east by **Bagirmi**. Towards the south and south-east its limits are undefined. The capital, **Yola**, is a busy trading centre on the Upper Benué, and is regularly visited by the Royal Niger Company's steamers, which ascend the river to **Ribago**, 70 miles above Yola.

**III. THE WESTERN SUDAN.**—Besides the Atlantic Coast Colonies and States, the Western Sudan includes the vast region which stretches north to the Sahara and east to the Middle Niger.

Of the numerous territorial divisions in this vast and, as yet, imperfectly known region, the most important is the **FRENCH SUDAN**, which includes nearly the whole of the basin of the Upper Senegal and part of that of the Upper Niger or Joliba. To the east of the French Sudan are the protected kingdoms of **BEGU** or **Bambara** (first made known by Mungo Park) and **MASSINA**—both countries traversed by the Joliba or Upper Niger, and inhabited by Mohammedan negroes.

The French Sudan is now governed by a Superior Commandant, resident at **KAYES** on the Senegal, whence a railway has been made along the left bank of the river as far as **Bafulabe**, and will ultimately be continued to the Niger at the town of **Bamaku**, which has been fortified. French gunboats (conveyed in sections from the Senegal) now patrol the Upper Niger as far as **Kabara**, the port of the famous city of **TIMBUKTU**, the chief emporium of traffic across the Sahara between the Sudan and the Barbary States. **Sansandig**, also on the Niger a few miles north of Segou, is a much larger and more important trading

town. Between Segu and Massina and the northern borders of Ashanti and Dahomey are several other negro States, such as those of **Mossi, Gurma, Dafina, and Tieba, and Dagomba and Kong**, further south. Little is known of these countries, but all of them are within the French "sphere of influence," which thus covers the whole of the Western Sudan with the exception of the British, Portuguese, and German Colonies and Settlements on the Senegambian and Guinea Coasts, and the Republic of Liberia.

#### QUESTIONS ON THE SAHARA AND THE SUDAN.

1. Where is the Sahara? What is the meaning of the name?
2. What is the extent of the Sahara?
3. What are its chief natural productions?
4. How is the commerce of the Sahara carried on? Point out on the map the most frequented routes.
5. To what region is the name Sudan applied?
6. What are the great natural features of the Sudan?
7. Trace the course of the chief rivers of the Sudan on the map, and point out Lake Chad.
8. What kind of climate has the Sudan?
9. To what races do the inhabitants of the Sudan belong?
10. Who are the Fulahs? What is fetishism? What has been the great obstacle to the advancement of the Negro?
11. What are the chief commercial productions of the Sudan?
12. Name the three great divisions of the Sudan.
13. What States are within the Central Sudan?
14. State what you know of Wadai and its tributary states.
15. Where is Bornu? Point out its capital.
16. Trace on the map the limits of the Empire of Sokoto, and point out some of the States tributary to it.
17. Where are Wurno, Sokoto, Kano, Gando, Yola, and Ribago?
18. What region is included in the Western Sudan? What European power controls the greater portion of it?
19. What is the capital of the French Sudan? French gunboats now patrol the Upper Niger; how were they placed there?
20. Where is Timbuktu?

#### WESTERN AFRICA.

The western coasts of Africa, within the tropics, are a distinct natural region, extending through a range of between three and four thousand miles along the Atlantic sea-board, from the borders of the Great Desert, in a northerly direction, to Cape Frio, south of the equator. This extended range of coast exhibits a succession of low plains, backed by uplands and plateaux at some distance inland. In some places, as at Sierra Leone, the high grounds advance to the coast and meet the waters of the Atlantic.

**Rivers.**—All the great rivers that are found on the western side of the African continent belong to this region, with the exception of the Orange. The chief of them are the **Senegal, Gambia, Rio Grande, and Niger**, all to the north of the equator; the **Congo** is partly, and the **Coanza** and the **Cunene** are entirely, to the south of that line. But a vast number of smaller streams, with numerous creeks and salt-water estuaries, occur throughout the entire range of coast.

**Climate.**—Owing to its position and to its numerous rivers and streams, Western Africa is characterised by a most redundant vegetation and an unhealthy climate. The intense heat of a tropical sun, acting on the mass of vegetable matter, occasions the malaria and deadly fevers, which are so commonly fatal to Europeans in this part of the world.

**Productions.**—The commercial productions of Western Africa include—besides the characteristic *gold dust, ivory, and ostrich feathers—palm oil, bees-wax, and various gums*. It is from the regions of the Senegal and the Gambia, and the line of the Guinea Coast, that these latter are chiefly obtained, and the traffic in them (which is carried on by European traders, chiefly English, French, and German) has become largely extended within recent years.

**Inhabitants.**—The native inhabitants of Western Africa are nearly all of *Negro* race. Many *Europeans* are now settled amongst them at various points. The Negro population is divided, as in the interior of the Sudan, into numerous petty kingdoms, at frequent war with one another, and the slave-trade (though of limited prevalence now, compared with its former condition) is the great bar to progress in the arts of industry and to social improvement.

**DIVISIONS:** The great geographical positions of Western Africa are *Senegambia*, *Upper Guinea*, and *Lower Guinea*.

*Senegambia* is the name given to the maritime region of the Western Sudan from the Senegal to the promontory of Sierra Leone.

*Upper Guinea* includes the coast countries from Sierra Leone to the Bight of Biafra. By *Lower Guinea* is generally understood the coastlands extending from the head of the Bight of Biafra to Cape Frio.

The *Political Divisions* of Western Africa include the numerous colonies, settlements, and protectorates belonging to Great Britain, France, Portugal, Germany, and Spain, and two independent States—the Republic of Liberia and the Congo Free State.

The following is a complete list<sup>1</sup> of the political divisions of Western Africa, named in order, from north to south:—

1. The French Colony of the **Senegal**.
2. The British Colony of the **Gambia**, divided by a strip of French territory from
3. **Portuguese Guinea**, which is separated by
4. The French Territory of the **Rivières du Sud** from
5. The British Colony of **Sierra Leone**, which extends to the borders of the independent
6. **Republic of Liberia**. Then follow
7. The French Settlements and Protectorate of the **Ivory Coast**,
8. The British Colony of the **Gold Coast**,
9. The German Colony of **Togoland**,
10. The French Protectorate of **Porto Novo** and **Kotonu**, and
11. The British Colony of **Lagos**, all on the Slave Coast. The Protectorate of Lagos adjoins
12. The **Niger Protectorate**, which is divided into
  - (1). The **Niger Territories**, and
  - (2). The **Oil Rivers District**. British West Africa ends at the Rio del Rey, thence to the south extend
13. The German Protectorate of the **Cameroons**,
14. The **French Congo**, with the Spanish settlements on **Corisco Bay** and the Portuguese district of **Cabinda**,
15. The **Congo Free State**, and, lastly,
16. **Portuguese West Africa**.

1. **THE SENEGAL**.—The French Colony of the Senegal, or Senegambia, as it is called from its two great rivers, the Senegal and the Gambia, includes the coastlands from Cape Blanco to the borders of Sierra Leone, with the exception of *Portuguese Guinea* and the English settlements on the *Gambia*.

Inland, the French have extended their dominions over the **Senegal riverain districts**, and have penetrated into the basin of the **Upper Niger**. **Dakar**, on the eastern side of the Cape Verde Peninsula, is the commercial metropolis of French West Africa, but **ST. LOUIS**, situated on a low island in the Senegal, near its mouth, is the seat of government. **KAYES**, on the Upper Senegal, is the capital of the French Sudan.

2. **THE GAMBIA**.—The small, but important, **British Crown Colony of the Gambia** includes **St. Mary's Island**, on which is the town of **BATHURST**, **British Combo**, **Albreda**, the **Oded Mile**, **McCarthy's Island**, and various other islands and territories on the banks of the Gambia.

1. The student should, first of all, trace the limits and note the position of these divisions on a good map, so that a clear idea may be gained at the outset of their absolute and relative position and extent.

The **River Gambia**, which was frequented by English traders in the time of Queen Elizabeth, is navigable for vessels of 300 tons as far as the **Rapids of Barraconda**, a distance of 300 miles from the sea, but only the *lower river*, as far as **McCarthy's Island**, 180 miles above Bathurst, is regarded as British.

The Gambia is divided from **Portuguese Guinea** by a belt of French territory which is included in the Senegal Colony, and which is traversed by the **Casamanze River**.

**3. PORTUGUESE GUINEA** includes the coast belt traversed by the Cacheo, the Geba, the Rio Grande, and the Cassini Rivers, with the adjoining Bissagos Islands.

The only settlements are **Zanguichor**, at the mouth of the Casamanze River; **Cacheo**, at the mouth of the Cacheo or San Domingo River; **Bissao**, on an island at the mouth of the Geba; and **Bulamo**, on an island at the mouth of the Rio Grande.

**4. THE RIVIERES DU SUD** is the name given to the French territory between Portuguese Guinea and Sierra Leone, and detached from the Senegal Government in 1891.

This territory consists of a narrow plain which extends between the **Futa Jallon Highlands** and the sea, and which is watered by the **Rio Nunez, Rio Pongo**, and other "Rivers of the South" (*Rivières du Sud*).

**5. SIERRA LEONE.**—The **British Crown Colony of Sierra Leone** includes the whole of the coast region between the *Rivières du Sud* on the north and Liberia on the south, together with the island of **Sherbro**, the **Isles de Los**, and other islands.

The coast-line is about 200 miles in length, and the Colony has a total *area* of about 4,000 square miles, with a *population* of perhaps 200,000. The climate is pestilential to Europeans, but the "White Man's Grave," as Sierra Leone is sometimes called, is an exquisitely beautiful country, and its undulating hills are clad in an evergreen mantle of the most luxuriant vegetation, while all kinds of tropical fruits grow in abundance on the richly fertile and well-watered soil. The trade, which amounts to about £600,000 a year, centres at **FREE-TOWN**, which is picturesquely situated on a slope of the "Sierra Leone" or *Lion Hill*, and has an excellent and strongly fortified harbour.

**6. LIBERIA.**—The **Negro Republic of Liberia** extends to the south-east of Sierra Leone for about 500 miles along the Grain Coast, and claims authority for about 200 miles inland.

Liberia was originally founded, in 1822, as a place of refuge for freed slaves. The commercial products of the republic are **coffee, palm oil** (the material of which almost the whole of our common soap is made), **palm nuts, cocoa, sugar, arrowroot, ivory**, and **hides**, but the exports and imports combined do not exceed half-a-million a year. The capital is **MONROVIA** (5) near Cape Mesurado, but **Harper**, near Cape Palmas, has, with its suburbs, a larger population.

**7. THE IVORY COAST.**—The **French Protectorate of the Ivory Coast** extends from Liberia to the Gold Coast Colony, the actual limits being the San Pedro River on the west, and the Assinie River on the east.

Of the trading stations on the Ivory Coast, the most important are **GRAND BASSAM** and **Assinie**, which have been French since 1843.

**8. THE GOLD COAST.**—The British Crown Colony of the Gold Coast comprises the harbourless coast between the Assinie River and the German Colony of Togoland, with a Protectorate extending inland to, and virtually including, the Native State of Ashanti.

The Colony and Protectorate have an area of about 46,000 square miles and a population of nearly 2 millions, of whom not more than 150 are Europeans.

Of the numerous forts and factories established on the Gold Coast by various European nations, since the Portuguese built the Castle of Elmina in 1481, the most important are **ACGRA** (20), founded by the Danes and purchased from Denmark in 1850, and now the capital and chief port of the colony; **Cape Coast Castle** (25), the former capital, whose great church-like fort stands close to the water's edge; **Ghama**, near the mouth of the Prah River; **Axim** and **Elmina**, the most important of the Dutch settlements transferred to Great Britain in 1872; **Adda**, at the mouth of the Volta, and **Quitta**, further east on the coast near Cape St. Paul.

**Ashanti**, before the power of its merciless tyrant was crushed by the British in the sanguinary war of 1873-4, was one of the most powerful of the Negro kingdoms of Western Africa.

In this war, the capital, **Coomassie**, was burnt, and the fearful massacres by which the Ashanti king had maintained his "reign of terror" happily came to an end, and the country is now being gradually brought under British influence.

The **Slave Coast** extends from the Gold Coast to the Niger, and includes the *German Protectorate* of Togoland; the *French Possessions* of **Porto Novo** and **Grand Popo**, between which is **Whydah**, the port of Dahomey; and the *British Colony* of **Lagos**, which adjoins the **Niger Protectorate**.

**9. TOGOLAND.**—The German Protectorate of Togoland has an area of 16,000 square miles, and a population of 500,000.

**Palm oil** and **ivory** are the chief articles of trade in this territory, which is carried on at **Togo**, the chief inland town, and at **Lome** (the chief port), **Little Popo** (the capital), and **Porto Seguro**, all on the coast.

**10. PORTO NOVO.**—The French possessions on the Slave Coast include **Porto Novo** and **Kotonu** to the east, and **Grand Popo** and **Agowe** to the west of **Whydah**—the port of the formerly independent Native State of **Dahomey**.

**PORTO NOVO** was taken by the French in 1862, but was abandoned and only re-occupied in 1882. Three years later, **Grand Popo** and **Agowe** on the western portion of the Dahomian coast were seized. **Kotonu** was obtained in 1896.

**Whydah**, the Ajuda of the Portuguese and formerly a great slave mart, is the port of the native kingdom of **DAHOMY**, which is now included within the French "Sphere of Influence," and will most probably be annexed. **Abomey**, the capital, is about 70 miles north of Whydah.

**11. LAGOS.**—The British Crown Colony and Protectorate of **Lagos** include the lagoon islands of **Lagos** and **Iddo**, and the adjoining lagoon-covered coast from **Kotonu** on the west to the **Benin River** on the east.



**Lagos Island** has an area of only  $3\frac{1}{2}$  square miles—the whole Colony and Protectorate include about 1000 square miles, with a population of 100,000, only about 100 of whom are Europeans. **LAGOS** itself is the largest town and most important port in all West Africa. It has a mixed population of about 80,000, and is fortunate in possessing the only safe harbour along 600 miles of coast. A large trade is also carried on at **Badagry** to the west, and at **Palma** and **Leckie** to the east, of **Lagos**.

The **Ogun River** affords an easy and direct passage from **Lagos** to **Abbeokuta**, the well-known and populous capital of **YORUBA**, an exquisitely beautiful and remarkably fertile country, bounded on the north and east by the Lower Niger. South-east of **Yoruba** and extending thence to the Lower Niger and its delta, is the old kingdom of **BENIN**, now entirely within the British Sphere of Influence.

**12. THE NIGER PROTECTORATE** includes the entire basin of the **Lower and Middle Niger**, with the whole of the coast from the **Benin River** to the **Rio del Rey**, and thus adjoins the British Protectorate of **Lagos** on the west and the German Protectorate of the **Cameroons** on the east.

The **River Niger** and its great tributary the **Benue**, are the natural high-ways into the rich and populous countries of the Central Sudan, and the whole navigable course of both rivers is through British territory, while the enormous internal and coast trade is wholly in the hands of British merchants.

The **Niger Protectorate**, which has an area of 500,000 square miles and a population of perhaps 20 millions, is divided into (1) the **Niger Territories**, governed by the **Royal Niger Company**, and (2) the **Oil Rivers District**, at present under British Consular jurisdiction.

The **Niger Territories** include the whole of the **Middle and Lower Niger**, and are governed by the **ROYAL NIGER COMPANY** (under the control of the Foreign Office), in virtue of treaties concluded with the Native States and tribes (about 300 in number), including the Empire of **Sokoto** and the vassal kingdoms of **Gando**, **Borgu**, **Nupe**, &c.

The **Oil Rivers District** includes the whole of the coast-line between **Lagos** and the **Cameroons**, except that falling within the **Niger Territories**. The British Consular jurisdiction is chiefly exercised in the estuaries between the **Benin**, **Brass**, and the **Old Calabar Rivers**.

The staple products of this region—*palm oil* and *palm kernels*, *vegetable butter*, *gums*, *ivory*, *hides*, *india-rubber*, &c.—are exchanged for *cotton* and *woollen goods*, *hardware*, *spirits*, *gums*, *gunpowder*, *salt*, &c., at the "factories," or trading stations, of which there are a large number on the coastal estuaries and on the **Niger** and its tributaries. The *palm oil* and other native products collected at the various factories are conveyed to **Akassa**, the port of entry at the **Nun River** (the main entrance to the **Niger**), where they are transhipped to the ocean steamers.

In the **Oil Rivers District**—so called from the enormous amount of *palm oil* brought down to the coast—the principal trading stations are at **Old Calabar**, **Opobo**, **Bonny**, **New Calabar**, **Brass**, **Warri**, and **Benin**.

**13. THE CAMEROONS PROTECTORATE.**—The German Protectorate of the **Cameroons** includes the coast region on the **Bight of Biafra**, between the **Rio del Rey** on the north and the **Campo River** on the south. The area is estimated at 130,000 square miles and the population at  $2\frac{1}{2}$  millions, only about 100 of whom are Europeans, most of them Germans.

A German Company, founded in 1886, has large plantations of **tobacco**, **coffee**, and **cacao**, and a large trade is carried on in **palm oil**, **ivory**, **india-**

rubber, and other valuable products. **VICTORIA**, on *Ambas Bay*, formerly an English missionary settlement, is the seat of government.

**14. THE FRENCH CONGO.**—The French Congo Protectorate includes the basins of the *Gabun*, *Ogowai*, and *Kwilu* rivers, and extends inland to the Congo and its tributary the *Mobangi*. This vast region has an area of over 250,000 square miles and a native population of perhaps 5 millions.

The *Gabun* is the finest estuary in West Africa. The *Ogowai* is 600 miles in length, has many long tributaries, and forms a large delta at its mouth. The *Kwilu*, or *Kwilu-Niadi*, a smaller river than the *Ogowai*, forms even a better route to Stanley Pool and the Upper Congo.

The principal settlement and seat of government is **LIBREVILLE**, on the estuary of the *Gabun*. There are several stations and fortified posts on the *Ogowai*, the furthest inland being *Franceville*. *Brassaville* is a small station, founded by the French explorer De Brazza, on the northern side of Stanley Pool, and almost opposite *Leopoldville*, the capital of the Upper Congo division of the Congo Free State. On the coast, about 20 miles south of the mouth of the *Kwilu*, is *Loango*, the capital of the old kingdom of Loango.

•• A few small settlements on *Corisco Bay*, with *Corisco Island*, about 40 miles north of the *Gabun River*, belong to *Spain*, and are politically attached to *Fernando Po*.

**15. THE CONGO FREE STATE**, founded in 1885, and of which the King of Belgium is sovereign, has an area of about 800,000 square miles and a population of between 10 and 20 millions. The State includes the greater part of the basin of the Congo, and is bounded on the west by the *French Congo* and the Portuguese territory of *Cabinda*, on the north by the *Mobangi River*, on the east by *British and German East Africa*, and on the south by *Zambesia* and *Portuguese West Africa*.

The great natural features of the State are the mighty Congo and its numerous tributaries, which form an incomparable network of over 10,000 miles of navigable waterways.

The CONGO itself is navigable from its mouth to **MATADI**, a distance of 110 miles, but between *Matadi* and **LEOPOLDVILLE**, a distance of 200 miles, it flows from gorge to gorge over no less than 82 falls and numerous rapids.

Above *Leopoldville*, the river is navigable for 1,000 miles to *Stanley Falls*, and a railway, 235 miles in length, is being built, from **MATADI** to **LEOPOLDVILLE**, to join the Upper Congo (on which there are now some 18 steamers) with the Lower Congo, which has a regular steamer service with Europe.

The principal commercial commodities of the State are *ivory*, *india-rubber*, *gum copal*, *palm oil*, *ground nuts*, and *coffee*, but there are many other sources of wealth. The annual value of the trade is under a million sterling, and about 1,000 vessels enter the ports of the State every year.

The three noteworthy places on the *Lower Congo* are *Banana*, the chief port at the mouth of the river; **BOMA**, the seat of government, on the north bank of the river, about 50 miles from the sea; and **MATADI**, on the south side, at the head of navigation and the starting point of the new railway to *Leopoldville*, on *Stanley Pool*, the most important of the 80 stations on the Upper Congo.

The government of the Congo State is carried on by (1) the **Central Government** at Brussels, directed by the King of Belgium as sovereign of the State, and (2) the **Local Government** at Boma, under a Governor-General.

15. **PORTUGUESE WEST AFRICA** includes the maritime Province of **Angola** (which extends from the mouth of the Congo to the **Cunene River**) and the Protectorate of **Lunda**, and a part of the basin of the **Upper Zambesi** in the interior, together with the territory of **Cabinda** and **Landana** to the north of the Congo. The total area of these vast territories is fully 600,000 square miles, while the population does not exceed  $3\frac{1}{2}$  millions.

Angola is much more prosperous than Mozambique on the other side of the continent. The trade, which consists in the export of **coffee**, **ground nuts**, **palm oil**, **india-rubber**, **ivory**, **gum-copal**, **skins of wild animals**, &c., and in the import of cheap spirits, guns, gunpowder, &c., centres at the seaport of **LOANDA** or **St. Paul de Loanda** (16), which is also the seat of the General Government of the whole Colony. **Ambriz**, a small port to the north of Loanda, and the ports of **Benguela** and **Mossamedes** to the south of the capital, are the centres of considerable trade. **San Salvador**, now a mere negro village, was formerly the capital of the powerful kingdom of Congo, and was then a splendid city with churches, convents, colleges, and palaces.

The greater part of the feudal Empire of **LUNDA** (the **Muata Yamvo's** Kingdom), to the east of Loanda, is included in Portuguese West Africa, and is regarded as a dependency of Angola.

#### QUESTIONS ON WESTERN AFRICA.

1. What region is usually comprehended under the name of Western Africa?
2. Name and trace the courses of the great rivers of Western Africa.
3. What characterises the climate of Western Africa?
4. Mention the chief commercial products of this region.
5. Name the three great geographical divisions of Western Africa? Point out on the map the chief political divisions.
6. What do you know of the French colony of the Senegal?
7. To what European power does the Gambia belong?
8. What part of the coast is included in Portuguese Guinea? Where are the **Bissagos Islands**?
9. Where is the French Colony of the **Rivieres du Sud**?
10. What do you know of **Sierra Leone**? Why is it called "The White Man's Grave"?
11. Where is **Liberia**? Under what form of government is it? When was the State founded?
12. What power controls the **Ivory Coast**? Name the chief trading stations on this coast.
13. Describe briefly the **British Crown Colony of the Gold Coast**.
14. What do you know of **Ashanti** and **Dahomey**?
15. Point out on the map the **German Protectorate of Togoland**, and the **French possessions on the Slave Coast**.
16. Where is **Lagos**? To what European power does it belong?
17. What part of West Africa is included in the **Niger Protectorate**? How is the Protectorate divided, and what is the ruling power in each of the two chief divisions of the Protectorate?
18. What are the staple products of the **Niger region**? Point out on the map the chief centres of trade in the **Niger Territories** and in the **Oil Rivers District**.
19. What are the limits of the **Cameroons Protectorate**? What settlement is the seat of government?
20. Give a short description of the **French Congo**. Which is the principal settlement in the Protectorate?
21. **Spain** has a few settlements and a small island on this coast. Point them out on the map.
22. When was the **Congo Free State** founded, and who is its sovereign?
23. Trace the boundaries of the State on the map, and point out its capital and chief port.
24. What are its great natural features?
25. Where are **Banana**, **Boma**, **Matadi**, and **Leopoldville**?
26. How is the State governed? Who was the first governor-general?
27. What region is included in **Portuguese West Africa**? Name its chief town.
28. **Portugal** also possesses a small territory to the north of the Congo. What towns does it contain?
29. Where are the following towns:—**Loanda**, **Ambriz**, **Benguela**, **Mossamedes**, and **San Salvador**?

## EASTERN AFRICA.

**EASTERN AFRICA** includes the coast lands from **Delagoa Bay** to the **Gulf of Aden**, together with the uplands to the east of the **Great Lakes**.

**DIVISIONS**.—The whole of Eastern Africa is now partitioned between four European Powers—Portugal, Germany, Great Britain, and Italy. And not only has the mainland been thus parcelled out, but the islands on or off the eastern coast are all occupied or “protected” by European Powers.

Eastern Africa is therefore politically divided into (1) Portuguese East Africa, (2) German East Africa, (3) Ibea or British East Africa, and (4) Italian East Africa. The islands of Zanzibar and Pemba form a British Protectorate; the great island of Madagascar and the Comoro Archipelago are French Protectorates; Réunion or Bourbon is a French Colony; and Mauritius is a British possession, as also are the Seychelles and the Amirante Islands, and Socotra.

**1. PORTUGUESE EAST AFRICA** includes the coast province of **Mozambique** and the limited portion of **Zambesia** assigned to Portugal by the Anglo-Portuguese Convention of 1891.

The Portuguese possessions include the coast lands, 1,260 miles in length, from Delagoa Bay to the Rovuma River, and extend inland to the edge of the Manica Plateau and the shores of Lake Nyassa. This immense territory forms the Province of Mozambique, and, with its dependencies, has an area of about 200,000 square miles and a population of perhaps 1 million, consisting of negroes of Kaffir or Zulu origin and numerous half-caste Portuguese.

The principal places in Portuguese East Africa are **MOZAMBIQUE** (10), the capital, a busy seaport, on a coral islet close to the shore (nearly under the 15° S. lat., and thus almost exactly opposite Mossamedes on the west coast); **Quillimane**, the chief port, on one of the delta mouths of the Zambesi; **Beira**, a small port at the mouth of the *Pungwe River*, important from its position on the shortest route to the Manica Plateau and British Southern Zambesia; **Sofala**, a port supposed to be the *Ophir*, whither King Solomon sent his ships for gold, &c.; **Inhambane**, on the coast near Cape Corrientes, the outlet for a fertile, well-wooded district; and **Lorenzo Marquez**, on Delagoa Bay, the terminal port of the railway now being constructed to Pretoria, and already open for traffic to Komati Poort on the Transvaal frontier.

On the Zambesi, the only noteworthy places are **Sena**, on the Lower Zambesi, 140 miles from the sea; **Tete**, 150 miles higher up, formerly an important trading centre; and **Zumbo**, a Portuguese settlement near the confluence of the Loangwa with the Zambesi.

**2. GERMAN EAST AFRICA** extends along the coast to the north of the **Rovuma River**, and stretches westwards to **Lakes Nyassa** and **Tanganyika**, and northward to the **Victoria Nyanza** and **Mount Kilimanjaro**. The total area of this vast territory is estimated at 350,000 square miles (or one-third larger than Germany itself), but the population does not exceed 2 millions.

This vast territory is the largest and by far the most valuable of all the colonial possessions of Germany. It embraces ‘high plateaux, lofty mountains, beautiful valleys, and strong rivers, where the rainy season unchains immense torrents.’ The chief ports are **DAR ES SALAAM**, which is also the seat of government, and **Bagamoyo**, on the coast opposite Zanzibar, and **Saadani** and **Fangani**, further north.

3. **BRITISH EAST AFRICA**, or *Ibea*,<sup>1</sup> as it is also called, extends along the coast from the *Umba River* in the south, to the *Juba River* on the north—a distance of 400 miles. Inland, the British "Sphere of Influence" extends westwards beyond the *Victoria* and the *Albert Nyanzas* to the borders of the *Congo Free State*—a distance of 900 miles. On the east, the British sphere is conterminous with the Italian sphere in *Gallaland* and *Abyssinia*. There are no definite limits on the north or north-west, but the *Upper Nile Region* and the *Eastern Sudan* and *Nubia* are open to British influence, and to it alone.

*Ibea*, to the 6° N. latitude, has an area of some 250,000 square miles and the rest of the British Sphere of Influence to the Egyptian frontier at least 800,000 square miles—a total area of over 1 million square miles, of which, however, but a comparatively small portion in the south has been as yet effectively occupied. The population, which consists of various Negro tribes, Arabs, and *Banyan* or *Hindu* traders, for so vast a territory is small, amounting to not more than 6 millions in the southern, and to 7 or 8 millions in the northern, division of a region, which measures over 1,600 miles from north to south.

The administration and development of all the territories included within the British sphere have been entrusted to the *Imperial British East Africa Company*, incorporated by Royal Charter in 1888. The great navigable waterways of the *Tana* and the *Juba* rivers afford excellent means of communication with the populous regions through which they flow. The chief port and seat of government, **MOMBASA**, is situated on an island off the coast. It has a fine harbour, and a railway is being built from the coast to the *Victoria Nyanza*. **Malindi**, **Lamu**, and **Kismayu** are other important trading stations.

The Native States of *Uganda* and *Unyoro*, between the *Victoria Nyanza* and the *Albert Nyanza*, are important links in the chain of communications between the *British East Africa Company's* stations on the *East Coast* and the rich provinces of the *Upper Nile*.

(1) **UGANDA**, the largest and most powerful of the Native States of Equatorial East Africa, includes the region on the north and north-west of the *Victoria Nyanza*, and, with *Usoga* and the vassal States on the eastern side of the *Nile*, has an area of 70,000 square miles and a population of perhaps 5 millions, mostly negroes of the *Bantu* race. **Mruhi**, on the *Somerset Nile*, is a great market town, but **Mengo**, on *Murchison Bay*, is the capital.

The late King *Mtesa* was a powerful sovereign, and under his arbitrary rule the country became rich and, in some degree, civilized. His son *Mwanga*, by a treaty (1889) with the *British East Africa Company*, placed his country under British protection.

(2) **UNYORO** is a Native State to the west of *Uganda*, and includes the fertile and well-watered plateau between *Uganda* and the *Albert Nyanza* and the *Semliki River*.

**ZANZIBAR**.—The Sultanate of *Zanzibar* formerly included a long strip of the coast, from *Cape Delgado* to *Kipini*, and several points on the coast as far north as *Warasheikh*, besides the productive and populous islands of *Zanzibar* and *Pemba*, but the Sultan has now little more than a nominal sovereignty. The partition of the *Zanzibar Sultanate* was commenced in 1888, by the cession of the *Mrima* or mainland, between the *Rovuma* and the *Umba River*, to the *German East Africa Company* for 50 years, and a similar lease of the coast lands and ports north of the *Umba* to the *British East Africa Company*. A

1. From the initial letters of the *Imperial British East Africa Company's* title.

further agreement was signed in 1890, by which Zanzibar and Pemba were placed under British protection, and the entire coast land and islands between the Uмба River and the Juba were ceded to the British East Africa Company as well as the 'northern ports'—Brava, Merka, Magadoxo, and Warsheikh—which were afterwards transferred to Italy. The island of Zanzibar has an area of 625 square miles, and Pemba 360 square miles, with a population of 125,000 and 40,000 respectively. The town of ZANZIBAR, now a free port, has a population of 100,000, and is an active centre of trade in the products of the land and those of the adjoining mainland.

**4. ITALIAN EAST AFRICA.**—The Italian Possessions and Protectorates, occupied or claimed, in Eastern Africa, are the Somali Coast from the *Juba River* to *Ras Hafun* (100 miles south of Cape Guardafui, the easternmost point of the continent), and the Red Sea coast from *Ras Kasar*, a headland on the coast 110 miles to the south of Suakin, to the *Strait of Bab el Mandeb*, together with the region to the east of Abyssinia and the Juba River, with the exception of the British Protectorate on the North Somali Coast and the French colony of Obok and Tajura Bay. Abyssinia is also claimed as lying within the Italian "Sphere of Influence," which is estimated to have a total area of some 350,000 square miles, and a population of about 6 millions.

Italian East Africa includes the province of Eritrea, and the Protectorates of Gallalana and Eastern Somaliland, and also the protected Native State of Abyssinia. The best known places in Eritrea are Massowa, the chief port and seat of government, on an island which closely adjoins the coast, about midway between Suakin and the island of Perim, and Assab Bay, about 50 miles north-west of the Strait of Bab el Mandeb, and nearly opposite Mocha. Gallalana has no definite limits—the wild Galla shepherds and warriors inhabiting vast districts stretching from Lake Dembea to the Equator. Somaliland is the general name for the Eastern Horn of Africa. The Northern Somali Coast, from Tajura Bay to Cape Guardafui and south to Ras Hafun, is a British Protectorate. British authority centres at BERBERA and ZEILA. The Eastern Somali Coast, from Ras Hafun to the Juba River, forms an Italian Protectorate—the principal places in which are the ports of Brava, Merka, Magadoxo, and Warsheikh.

#### QUESTIONS ON EASTERN AFRICA.

1. Define the limits of Eastern Africa. How is this region divided?
2. What part of it is included in Portuguese East Africa?
3. Where are Mozambique, Quillimane, Sofala, and Inhambane?
4. Why are the ports of Beira and Lorenzo Marques likely to become important?
5. Name the chief settlement on the Zambesi.
6. What are the boundaries of German East Africa?
7. Point out on the map the capital of, and other towns in, this territory.
8. What region is included within British East Africa? What town is the capital? Name other important trading stations.
9. State what you know of Uganda and Unyoro.
10. Give some account of the Sultanate of Zanzibar.
11. What portion of Eastern Africa is occupied or claimed by Italy? Where is Massowa?

## SOUTHERN AFRICA.

The southern part of the African continent includes several extensive territories under British rule, and two independent Dutch republics, together with the vast territory of *German South-West Africa*.

## BRITISH SOUTH AFRICA.

BRITISH SOUTH AFRICA includes the great self-governing colony of the **Cape**—the wealthiest and most important part of all South Africa—the colony of Natal, the Crown Colonies of **Basutoland**, **British Bechuanaland**, and **Zululand**, and the Protectorates of **Tongaland**, **Bechuanaland**, and **Zambesia**.

## THE CAPE COLONY.

THE CAPE COLONY,<sup>1</sup> which derives its distinguishing name from the Cape of Good Hope,<sup>2</sup> is bounded on the *north* and *north-east* by the Orange River, British Bechuanaland, the Orange Free State, Basutoland, and Natal; on the *west*, by the Atlantic; and on the *south*, by the Indian Ocean.

**EXTENT.**—The area of the Cape Colony, including the Transkeian Territories and Walfish Bay, is about 233,430 square miles, or more than 4 times that of England and Wales. The *extreme length* of the colony is 600 miles, and the *breadth*, about 450 miles.

**GRIGUALAND WEST**, to the north of the Orange River, and the whole region south of the Orange and west of the Kei River, are included in Cape Colony Proper—the **Transkeian Territories**, between the Kei River and Natal—are dependencies of the Cape Colony, as also is the district of **Walfish Bay**, along with several small islands, on the West Coast.

**COASTS.**—The coast-line of the Cape Colony is of the same regular and unbroken character as that of the African continent generally, and embraces but few harbours, although it is upwards of 1,300 miles in length.

1. The first settlement was formed by the Dutch in 1652, in the immediate neighbourhood of Table Mountain. The Dutch colonists gradually pushed inland to the Great Fish River on the east, and to the Roggeveld range on the north. In 1795, the colony was occupied by the British, but was given back in 1803, at the peace of Amiens. Three years later, it was again taken by the British, and has since remained British territory. But it was not until the year 1847 that the northern frontier of the Cape Colony was extended to the Orange River, an artificial line, drawn considerably to the southward of that stream, having previously marked its limits. The area of country under British rule was gradually enlarged by the annexation of British Kaffraria in 1806, Basutoland in 1808, Grigualand East in 1876, Grigualand West in 1878, and subsequently the Transkeian territories; so that Natal and the Cape Colony are continuous, the boundary being the River Umntamfuna. Walfish Bay, on the coast of Damaraland, in German South-West Africa, also belongs to the Cape Colony.

2. The Cape of Good Hope is important, both from its geographical position and from its place in the annals of discovery. It was discovered, in 1487, by Bartholomew Diaz, a Portuguese navigator, towards the close of a century which had been devoted by the Portuguese to the prosecution of maritime discovery along the western side of the African continent. Diaz succeeded in doubling the Cape in this voyage, and landed on the coast at some distance beyond. This feat was justly regarded as preparing the way for a passage to India by a maritime route. Ten years later, in 1497, Vasco da Gama (also a Portuguese) conducted the first fleet of ships to India by way of the Atlantic and Indian Oceans, passing, of course, round this famous headland.

Diaz had called this long-sought headland (which he erroneously believed to be the extreme southern point of the African continent) by the name of "El Cabo Tormentoso," or the Stormy Cape; but the king of Portugal, on the return of Diaz, changed this name to *El Cabo de Boa Esperanza*—the Cape of Good Hope—the name which it has ever since borne.

**Cape Agulhas and the Cape of Good Hope**—the two most important head-lands of South Africa—are both within the coast-line of the Cape Colony. The former is the most southerly point of the African continent and of the Old World.

**INLETS.**—The most considerable inlets are **St. Helena, Saldanha, and Table Bays**, on the west coast; **False Bay with Simon's Bay, and Mossel and Algoa Bays**, on the south coast.

Of the above inlets **Saldanha Bay** forms naturally the best harbour. At **Table Bay**, which is somewhat unsafe during the north-west winds, extensive harbour works are in progress which will render the harbour permanently secure and accessible at all times. **Simon's Bay**, which is entered through **False Bay**, is well sheltered and commodious, and is the principal South African Station of the British Fleet. Table Bay is so named from its vicinity to **Table Mountain**—an elongated mass of hill, with a flat top, which rises above its southern shore, and in the immediate vicinity of Cape Town. Table Mountain reaches 3,582 feet in height.

**NATURAL FEATURES.**—The surface of the colony rises from the sea-board to the interior, not regularly, but by a series of terraces or steps, the seaward edges of which are marked by the long ranges of mountains and hills that extend across the country from west to east.

These parallel hill-ranges increase in altitude towards the interior, and reach their culminating height in the chain of the **Nieuveld Mountains**, the loftiest elevations in Southern Africa. The highest portion of the Nieuveld (or the **Sneeuwberg**, as they are called) rises in **Compass Berg** to an elevation of 9,000 feet above the sea.

The plain that extends along the southern base of the Nieuveld Mountains is called the **Great Karroo**, and has an arid and gravelly surface. The lower plains, nearer the coast, are watered and moderately fertile. The northerly portion of the province, between the chain of the Nieuveld and the course of the Orange River, consists chiefly of extensive open plains, for the most part scantily watered.

**Rivers.**—The principal rivers are the **Orange** and the **Olifants**, flowing into the Atlantic; and the **Breede, Gauritz, Gamtoos, Great Fish, Keiskamma, and the Kei**, flowing into the Indian Ocean.

The **Orange River**, which forms the northern border of the Cape Colony, is about 1,200 miles long, but it has comparatively little volume of water, and is not navigable, except for small craft for about 50 miles above the bar at its mouth. Of the other rivers of the colony none are considerable streams, and their volume of water varies greatly with the season of the year.

**Climate.**—The climate of the Cape is temperate, dry, and healthy. The occasional prevalence of droughts is its chief drawback. In the eastern province rain falls in summer, but in the western in winter.<sup>1</sup>

**Productions.**—The extensive open plains of the interior are admirably suited for **pastoral pursuits**; and the millions of live-stock reared upon them supply the most valuable products of the Colony.

The sheep, goats, cattle, and horses, supply the **wool, mohair, skins, and hides**, which, with **diamonds, copper, and ostrich feathers**, form the staple exports. The colony also produces excellent **wheat** and other cereals, with large quantities of **grapes** (principally used for making wine), **oranges** and other fruits. The **heaths** and other native plants are peculiar to this part of the world.

1. In the north-west portion of the Great Karroo less than 6 inches of rain fall in the year. At Cape Town, the rainfall amounts to 39 inches; at Kimberley, 16; and at Port Elizabeth, 25, as against 26 inches in London.



The chief mineral products are **diamonds** from the famous Kimberley mines, and **copper** from Little Namaqualand. But there are also rich deposits of **iron ore** and **coal**, and some **gold** has been found in the Knyana district.

**INHABITANTS.**—The Cape Colony and its dependencies contain about 1½ million inhabitants, one-third of whom are **Europeans**—mainly of Dutch, British, and German origin. The rest are **Kaffirs** and other coloured races.

A large number of the white population is of British descent, but the majority of the people in the western provinces are of Dutch origin, owing to the fact that the colony was originally established by the Dutch, and only came into the possession of Great Britain in the early part of the present century. The coloured population comprehends *Hottentots* and *Kaffirs*—the two native races of this portion of the African continent. The pure *Hottentots* are now few in number; the people of the Kaffir race are much more numerous, and perhaps amount to a third of the entire population of the province. Of the other races the *Malays* are the most numerous.

**INDUSTRIES.**—The chief pursuit is **sheep and cattle rearing**, for which the colony generally is better suited than for agricultural operations. **Mining**, especially for *diamonds* and *copper*, is an important industry, and furnishes by far the most valuable export.

The **sheep farms** are very large, but those in tillage are comparatively small. Large quantities of **maize**, **wheat**, **millet**, and other grains are grown, but the cultivable area is limited, owing to the deficient rainfall, and, except in some favoured localities, it is impossible to rely upon a regular return from the soil without *irrigation*. The vine is cultivated on a scale of some magnitude in the western provinces, and over 4½ million gallons of **wine** were produced in 1890. **Ostrich farming** is an important industry, peculiar to, and practically a monopoly of, the colony.

**Diamonds**, however, form the principal and an apparently inexhaustible source of wealth to the colony. Since the gem was first discovered in South Africa in 1867, over 50 million pounds' worth of diamonds have been exported, chiefly from the Kimberley mines. **Copper ore**, the only other mineral exported, is obtained principally from the rich and productive mines of *Ookiep* in Little Namaqualand; the ore is conveyed by a railway, worked by mules, to *Port Nolloth*, whence it is shipped to South Wales to be smelted.

**Means of Communication.**—The roads are generally good in the more settled districts. In the interior they are mere tracks. **Railways** are now being rapidly extended, there being 1,800 miles open for traffic, arranged in three systems—the **Western System**, starting from *Cape Town* and extending north to *Kimberley*, and thence through British Bechuanaland via *Taunags* and *Vryburg*, to *Mafeking*; the **Midland System**, from *Port Elizabeth* to *Colesberg*, and now extended to *Bloemfontein*, the capital of the Orange Free State; and the **Eastern System**, from *East London*, through *Queenstown*, *Cyphergat*, and *Burghersdorp*, to *Aliwal North*. Branch lines connect *Graaf Reinet* in the interior, and *Port Alfred* on the coast, with *Port Elizabeth*.

**Commerce.**—Nearly all the trade of the Cape Colony is with the United Kingdom. **Diamonds**, **wool**, **copper ore**, **hides** and **skins**, **ostrich feathers**, **gold** (from the Transvaal), with **wine** and **brandy**, form the chief exports. The imports are principally *textile fabrics*, *articles of food and drink*, *hardware*, and *machinery*. The chief ports are **CAPE TOWN**, on Table Bay; **Port Elizabeth**, on Algoa Bay; and **Port Alfred** and **East London**, on the south-east coast.

**GOVERNMENT.**—The Cape Colony possesses responsible government under a Governor appointed by the Crown.

The *Revenue* and *Expenditure* each amounts to about  $4\frac{1}{2}$  millions a year. The *Public Debt* of the Colony, which amounted to 22 $\frac{1}{2}$  millions in 1890, has been incurred almost entirely in the construction of public works. Over 14 millions have been spent on railways alone.

**DIVISIONS.**—Cape Colony is divided into eight electoral provinces, which are subdivided into 75 magisterial districts.

The *Western Province* includes the older settled and the most populous portion of the Colony. **CAPE TOWN**, the chief place in the province, is the capital of the Colony and by far the most important town in the whole of British South Africa. The town, which derives its name from the famous promontory which it adjoins, stands on the shores of Table Bay, and, with its suburbs, has about 60,000 inhabitants. It was originally laid out by the Dutch, and presents in its general appearance a great resemblance to the towns in Holland. Its trade has largely increased within the last few years. The *Constantia* district to the south, and the *Stellenbosch* and *Faarl* districts to the east of Cape Town, are famous for their vineyards. **Graaf Reinet**, the oldest and the largest of the midland towns, is the chief town in the *Midland Province*.

**Port Elizabeth**, in the *South-Eastern Province*, is a great wool port on Algoa Bay. **Grahamstown** is a beautiful city, a favourite health-resort, and one of the most pleasant places of residence in the Colony. **East London**, at the mouth of the Buffalo River, is the chief port of the *Eastern Province*. **King William's Town**, an important commercial centre between East London and the interior, was formerly the capital of the territory then called British Kaffraria.

The *Province of Griqualand West* is the only part of the Colony to the north of the Orange River. Naturally bare and uninviting, except along the Orange and the Vaal, but with a dry and healthy climate, this province was inhabited, before the discovery of diamonds, by only a few thousand Griquas and a few Dutch and English settlers, until the "diggings" attracted thousands of fortune-hunters to it, and, since diamond-mining has become a settled industry, **Kimberley** has been transformed from a mushroom camp into a permanent mining centre. The town of **Beaconsfield**, which is built on the north-west side of the Bultfontein and the Dutoitspan mines, is rapidly growing in importance, and ranks next to Kimberley as a mining centre.

The *Transkeian Territories*, which extend from the Great Kei River to the borders of Natal, are dependencies of the Cape Colony. They include the *Transtei* (which comprises Gcalekaland, Fingoland, and the Idutywa Reserve), *Tembuland*, *Pondoland*, and *Griqualand East*. The majority of the population are natives, who are all under British rule, except those of East Pondoland. These territories, which have a total area of over 16,000 square miles and a population of 620,000 (only 11,000 of whom are Europeans), are now grouped under three chief magistrates, with several subordinate magistrates. Pondoland is under a Resident Commissioner.

The *Walfish Bay* district on the West Coast, which has an area of 480 square miles, is attached to the Cape Colony, and is the principal outlet for the vast, and at present undeveloped, territories which form German South-West Africa.

## NATAL.

The British colony of Natal<sup>1</sup> includes the territory lying between the *Tugela River* on the north and the *Umtamfuna* on the south; and extending inland from the coast to the *Drakensberg Mountains*, which separate it from Basutoland and the Orange Free State.

1. The Natal coast was discovered by Vasco da Gama on Christmas Day, 1497, hence its name.

Natal has an estimated area of 21,150 square miles, nearly one-third that of England and Wales, with a seaboard of about 200 miles. The distance from the coast to the Drakensberg varies from 80 to 120 miles.

**Natural Features.**—The coast district of Natal consists of a low plain. This rises gradually towards the interior, attaining an elevation of 1,000 feet and upwards in the central and westerly divisions of the colony. The average height of the **Drakensberg** is between 5,000 and 6,000 feet, but some of its summits attain an elevation of over 10,000 feet above the sea. The province is generally well watered. The **Tugela** is the longest of its rivers, all of which discharge into the Indian Ocean.

**Productions.**—The climate of Natal is warmer than that of the Cape, and its productions are in many respects different. Within the low districts that adjoin the coast, the vegetation is almost tropical in character. The sugar-cane grows wild, and the cotton-plant is capable of profitable culture. The pineapple and the fruits of southern Europe flourish. The higher plains of the interior are adapted to the growth of wheat and other cereals of the Temperate Zone. The principal mineral productions include coal, which is now extensively worked at Newcastle and Dundee in Klip River County.

**Inhabitants.**—Natal now contains over 550,000 inhabitants, of whom 47,000 are Europeans, and 40,000 Indian coolies. The rest are Zulu Kaffirs. The Europeans nearly all speak English, but half of them are of Dutch descent, and there are also some German and Norwegian settlers.

**Industries.**—The occupations of the Kaffirs are almost exclusively pastoral, but the European colonists have brought a large portion of the land, especially along the coast, under cultivation. Sugar is the chief product of the coast region, but coffee, tea, tobacco, arrowroot, and the sweet potato are also grown. Wheat, barley, and oats are largely grown on many of the midland and upland farms. Maize and Kaffir corn (the staple food and drink material of the natives) grow luxuriantly everywhere. Sheep-farming is the most important industry in the colony, and wool the staple article of export.

The chief exports besides wool are gold, sugar and rum, skins and hides. Much of the wool and hides comes from the Orange Free State and the Transvaal, and almost all the gold from the Transvaal. Of the exports, 90 per cent. go to Great Britain, and 80 per cent. of the imports—chiefly iron and iron goods and machinery, textile fabrics, and leather goods—are British.<sup>1</sup>

**GOVERNMENT.**—The government of Natal is administered by a Governor aided by an Executive Council of the chief government officers, and a Legislative Council.<sup>2</sup>

**DIVISIONS.**—Four of the main divisions—**Alfred, Alexandra, Durban, and Victoria**—are on the coast; **Pietermaritzburg, Weenen, and Umvoti** occupy the central, and **Klip River** the northern, part of the country.

With the exception of **Pietermaritzburg**, the capital, which has a population of 17,000—of whom 9,000 are Europeans—and of **Durban**, the only port, with a population of 25,000—of whom one-half are Kaffirs and Indians, the towns are very small, the largest being **Verulam**, 19 miles by rail north-east of **Durban**, **Ladysmith**, 190 miles, and **Newcastle**, 264 miles by rail north-west of **Durban**.

1. Nearly all the trade of Natal is with the United Kingdom. Imports, 1890, 4½ millions sterling. Exports, 1½ millions. Three-eighths of the exports are from, and one-third of the imports is for, the neighbouring Dutch Republics.

2. Before 1866, Natal formed part of the Cape Colony, but in that year it was erected into a distinct colony, under the administration of a Lieutenant-Governor and, since 1892, of a Governor appointed by the Crown.

∴ In addition to the Cape Colony and Natal, several other territories in Southern Africa are also under British rule or protection. These are (1) Zululand, (2) Swaziland, (3) Tongaland, (4) Basutoland, (5) Bechuanaland, and (6) Zambesia.

1. **ZULULAND.**—The British Crown Colony of Zululand lies to the north-east of Natal, from which it is divided by the Tugela River, and includes about two-thirds of the former Zulu kingdom.

British Zululand has an area of 9,000 square miles and a population of about 150,000 (of whom only 500 are Europeans). The Zulus, from being a nation of warriors, always ready and eager for war, have at last settled down to the more peaceful pursuits of agriculture and cattle-rearing. **Eshowe**, where the British Commissioner and Chief Magistrate resides, is in communication with Natal by telegraph, and by daily post, carried by native runners. **Ulundi**, on the *White Umvolosi River*, was the chief kraal of Cetewayo, the last king of the Zulus, and here the Zulu army, which had for so long been the terror of South-Eastern Africa, was defeated and finally dispersed.

2. **SWAZILAND** is a small Native State enclosed on three sides by the Transvaal, and bounded on the east by Tongaland and the Portuguese Territory. It has an area of about 8,000 square miles, and a population of about 60,000. The Lobombo Mountains extend along its eastern borders. The country is watered by the **Usutu River** and its tributaries.<sup>1</sup>

3. **TONGALAND** is a much smaller Native State on the coast to the north-east of Zululand, and was taken under British protection in 1887. Tongaland is about 75 miles long and 40 miles broad, and has an area of about 3,000 square miles.

4. **BASUTOLAND.**—The British Crown Colony of Basutoland lies to the north-east of Cape Colony, and forms an irregular oval 10,000 square miles in extent, completely enclosed by the Cape Colony, Natal, and the Orange Free State. Except on the south-west, its boundaries are formed by strongly marked natural features, the great range of the **Drakensberg** separating the Colony from Griqualand East and Natal, while the **Caledon River**, a tributary of the Upper Orange, divides it on the north-west from the Orange Free State. **Maseru** is the capital. The **Basutos**, who now number about 218,000, are the most industrious and civilized of all the Kaffir tribes of Southern Africa.

5. **BECHUANALAND** lies to the north of the Cape Colony, and is bounded on the east by the Transvaal, and on the west by German South-West Africa. The total area is 170,000 square miles, or nearly 3 times the area of England and Wales.

The Crown Colony of British Bechuanaland is enclosed on the north and west by the Molopo-Hygap River, on the east by the Transvaal, and on the south by Griqualand West and the Orange River.

The British Protectorate of Bechuanaland includes the rest of the country north of the Molopo River to 22° of South latitude, and west to the 20° of East longitude. The colony has an area of 43,000 square miles, and the Protectorate about 127,000 square miles.

The railway has been extended from **Kimberley** to **Taungs** and **Vryburg** (774 miles from Cape Town), and is now open to **Mafeking**, in the extreme north-east of the colony, close to the western border of the Transvaal. **VRYBURG** is the capital of the colony, but **MAFEKING** is the largest European township and the chief centre of trade, which is carried on with the natives of the Protectorate and with the Boers of the Western Transvaal.

1. Swaziland is as yet only partly under British protection. The Government Committee consists of three members, representing the British, Dutch, and Swazi Governments respectively. The Swazi Government, however, acts independently in all native affairs.

6. **ZAMBESIA** includes the vast region under British protection, or within the British 'sphere of influence' in South Central Africa, extending from **Bechuanaland** and the **Transvaal** on the south, to **Lake Tanganyika** on the north, and divided by the **Zambezi** into two great sections, which we may distinguish as *Southern Zambesia* and *Northern Zambesia*.

**SOUTHERN ZAMBESIA** is bounded by the **Bechuanaland Protectorate** on the south, **German South-West Africa** on the west, **Portuguese East Africa** on the east, and **Northern Zambesia** on the north. It includes *Matabeleland*, *Mashonaland*, the greater part of *Khama's Country*, and other native territories which were, until 1888, absolutely independent.

**Matabeleland** and **Mashonaland** are rich in gold, and the healthy and fairly fertile uplands are well adapted for *European settlement*. The **Manica Plateau**, especially, has immense mineral wealth, and the fertility of its soil and the salubrity of its climate make it capable of sustaining a large European population. The administration and commercial development of these territories have been entrusted to the **British South Africa Company**, which, by its Charter, especially undertakes to develop the mineral and other resources of the country, and to promote and aid immigration.

**NORTHERN ZAMBESIA**, or **British Central Africa**, as some prefer to call the region—now definitely declared British territory—to the north of the **Zambezi**, has a total area of not less than 300,000 square miles, or 6 times the area of England.

A **British Imperial Commissioner** controls the administration of Northern Zambesia by the **British South Africa Company**, and acts as its Administrator. He is practically Governor of **Nyassaland**, where the *African Lakes Company* and *British Missionaries* have been at work for many years. The seat of administration is at **ZOMBA**, in the **Shiré Highlands**.

## THE ORANGE FREE STATE.

**THE ORANGE FREE STATE** is bounded on the north by the **Transvaal** or **South African Republic**, on the west by **Griqualand West**, on the south by the **Cape Colony**, and on the east by **Basutoland** and **Natal**.

Except on the west, the boundaries of the **Orange Free State** are formed by natural features, such as the **Vaal River**, which divides it from the *Transvaal* or **South African Republic**, the **Drakensberg Mountains** from **Natal**, the **Orange River** from **Cape Colony**, and the **Caledon River** (a tributary of the **Orange River**) from **Basutoland**.

The area of the State is estimated at 41,500 square miles (about four-fifths that of England), while the population amounts to over 207,000, an average of only five persons per square mile.

The northern portion of the country, enclosed by the **Drakensberg Mountains** and the **Vaal River**, is level, as are also the western districts. The southeastern portion is undulating, and, in part, hilly. Most of the rivers in the north flow into the **Vaal**, those in the south join the **Orange** or its tributary, the **Caledon River**.

The white inhabitants (78,000 in number), most of them of Dutch descent, are mainly engaged in sheep-farming, and wool forms the principal article of export. The undulating plains afford excellent grazing, and the State is essentially a pastoral country, but in the eastern districts the soil is, in many parts, admirably adapted for wheat-growing. **Diamonds**, **garnets**, and other precious stones, and even gold, are found, and there are several coal mines. **Ostrich farming** is also an important and lucrative industry. Much of the exportable produce of the eastern part of the country is carried over the **Drakensberg** into **Natal**, the waggons returning with manufactured goods and

coast produce (sugar, coffee, &c.). The waggon traffic of the southern districts is now supplemented by the new railway from Colesberg, in the Cape Colony, to Bloemfontein. The imports are supposed to amount to about a million sterling, and the exports to 2 millions a year.

The *government* is republican in form—an elected President holding the executive, and the Volksraad the legislative, power.<sup>1</sup>

For administrative purposes the State is divided into five divisions, named after the chief town in each, namely, *Harrismith* and *Winburg* in the north, *Bloemfontein* in the centre, and *Fauresmith* and *Smithfield* in the south.

**BLOEMFONTEIN**, the capital, is a small town with less than 4,000 inhabitants. It is now connected by rail with the Cape Colony.

## THE SOUTH AFRICAN REPUBLIC.

**THE SOUTH AFRICAN REPUBLIC**, also called the *Transvaal*, comprises an extensive territory lying beyond the Vaal River, hence its name. It is bounded on the *north* by Zambesia, and on the *west* by Bechuanaland—from both of which it is divided by the Limpopo River; on the *east* it is limited by Portuguese East Africa and Swaziland; and on the *south* by British Zululand and Natal, and the Orange Free State, from which it is separated by the Vaal River.

The area of the Republic is estimated at 122,000 square miles, or more than twice that of England and Wales. The population includes 120,000 whites (one half of whom are Dutch) and 560,000 natives—Zulu Kaffirs, Bechuanas, Makatees, and Basutos.

Generally speaking, the country is an elevated plateau of an average height of 3,000 feet, sloping west and north from the Drakensberg Mountains to the Limpopo River. The higher portion of the plateau is in the south, and forms what is known as the *Hooge Veldt* or *high country*. The Hooge Veldt has an average elevation of about 5,000 feet, and is, on the whole, well fitted for grazing. North and east of the Hooge Veldt is the *Banken Veldt* or *terrace country*, which is hilly and well-watered. This portion of the country is also well fitted for grazing, but it contains, besides, much arable land. Beyond it extends the sub-tropical *Bush Veldt* or *bush country*, which includes a broad belt enclosed by the Limpopo. The Bush Veldt is in some parts extremely unhealthy, and, being infested with the dreaded *tsetse fly*, is not available for pastoral purposes.

The country generally is favourable for agriculture as well as stock rearing, and there are rich goldfields around *Johannesburg* and *Barberton*. The Boers of the Transvaal are almost entirely engaged in pastoral pursuits. Immense numbers of sheep and cattle are reared, and *wool* and *hides* are largely exported, chiefly through Port Elizabeth and Durban. The country is also well adapted for the growth of cereals, but at present much flour is imported. *Ostrich farming* is also carried on to some extent. Excellent *tobacco* and fine fruits are grown.

Over 20 goldfields, covering an area of over 1½ million acres, have been already proclaimed. The *Witwatersrand Mines*, a few miles to the south of Pretoria, are by far the richest, but the *De Kaap Mines*, in the eastern part of the country, are also very productive. Several hundred companies, employing many millions of capital, and supporting a mining population of at least 50,000, are actively working for gold alone.

The *government* of the South African Republic is vested in an elected President and a Parliament of two Volksraaden of 24 members each.

<sup>1</sup> Like the Transvaal, the Orange Free State was settled by discontented Dutch Boers or farmers, who emigrated thither from Natal, when it was declared a British Colony. The country, how-

ever, was proclaimed British territory in 1868, but in 1884 the Boers were permitted to form a "free and independent government."

The country is divided, for administrative purposes, into 17 districts, which are named after their chief towns or villages. **PRETORIA** (5) is the capital, and **Potchefstroom** was the principal place of trade before the rapid development of the goldfield towns of **JOHANNESBURG** (30) and **Barberton** (7).<sup>1</sup>

## GERMAN SOUTH-WEST AFRICA.

The German Protectorate in South-Western Africa includes the entire region between the Orange River on the south and the Cunene on the north, except the small British settlement of **Walfish Bay**. It extends inland from the sea to the borders of **Bechuanaland** (20° E. long.) and of **Zambesia** (21° E. long.), with a narrow strip extending north-eastwards along the **Chobe River** to the **Zambesi**.

This extensive region comprises the whole of **Great Namaqualand**, the whole of **Damaraland** (except **Walfish Bay**), that part of **Ovampoland** to the south of the **Cunene River**, and a large portion of the **Kalahari Desert**. The whole area is about 350,000 square miles, or 7 times the area of **England**, but the population is under a quarter of a million. From **Angra Pequena** or **Lüderitz Bay**, on the **Namaqua coast**, a cattle-track leads into **Central Namaqualand**. There are a few **Mission Stations**—**Bethany**, **Barmen**, **Ehoboth**, &c.—on the interior uplands. **Walfish Bay** belongs to the **Cape Colony**.

## QUESTIONS ON SOUTHERN AFRICA.

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| <ol style="list-style-type: none"> <li>1. What colonies does Great Britain possess in Southern Africa?</li> <li>2. What are the boundaries of the Cape Colony?</li> <li>3. Describe briefly the chief natural features of the Cape Colony.</li> <li>4. Name some of the principal rivers of the Cape Colony.</li> <li>5. By what is Cape Agulhas distinguished?</li> <li>6. By whom was the Cape of Good Hope discovered, and in what year?</li> <li>7. What do you know concerning the climate and productions of the Cape Colony?</li> <li>8. What races of people are found in the Cape Colony?</li> <li>9. What are the chief pursuits at the Cape?</li> <li>10. Name the chief towns of the Cape Colony.</li> <li>11. What famous mountain is in the vicinity of Cape Town?</li> <li>12. What part of the colony is known as Griqualand West, and what is the name of its chief town? Where are the Transkeian Territories and <b>Walfish Bay</b>?</li> <li>13. Point on the map to the colony of <b>Natal</b>, and say what you know concerning its natural features and climate.</li> </ol> | <ol style="list-style-type: none"> <li>14. What race of people constitutes the chief population of <b>Natal</b>? What are the chief pursuits of the European population?</li> <li>15. Name the principal town, and also the chief seaport, of <b>Natal</b>.</li> <li>16. What other British territories (besides the Cape Colony and <b>Natal</b>) are included within Southern Africa?</li> <li>17. Give a brief description of <b>British Zululand</b>, and of <b>Swaziland</b> and <b>Tungaland</b>.</li> <li>18. What do you know of <b>Basutoland</b> and <b>Bechuanaland</b>?</li> <li>19. What regions are included in <b>British Zambesia</b>? Where is <b>Mashonaland</b>? Point to <b>Matabeleland</b> on the map.</li> <li>20. Trace the limits of <b>Northern Zambesia</b>. What part of it is known as <b>Nyaassaland</b>?</li> <li>21. State what you know of the <b>Orange Free State</b>.</li> <li>22. Describe briefly the natural features and productions of the <b>Transvaal</b>. Name the chief towns. Which of them is the capital, and which the centre of the goldfields?</li> <li>23. Give some account of <b>German South-West Africa</b>.</li> </ol> |
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1. The **Transvaal**, like the adjoining **Orange Free State**, was settled by emigrant **Boers** from the **Cape Colony** and **Natal**. A republican form of government was established, and for some years the country made good progress. In 1876, however, serious troubles with the natives so disorganised the **Boer Government** that the **British Commissioner**, fearing a general rising of the natives, annexed the country in the following year. The **Boers** protested against the annexation, and even sent a deputation to **England**,

but with no effect. Their dislike to **British** rule at length culminated in a general rising, and in **December, 1895**, they proclaimed their independence, and subsequently defeated the **British** troops in several engagements. Shortly after the disastrous battle of **Maifobe** **1896**, hostilities were suspended, and a treaty signed, by which self-government was restored to the **Boers** under **British** Suzerainty, which, however, was annulled in **1894**, and the **British Resident** was replaced by a **Diplomatic Agent**.

## ISLANDS OF AFRICA.

All the islands on or off the coasts of Africa belong to various European powers, either as Colonies or Protectorates. The principal of them are **Madeira**, the **Canaries**, the **Cape Verde Islands**, **Ascension**, **St. Helena** and **Tristan d'Acunha** in the *Atlantic*, with **Fernando Po**, **Prince's Island**, **St. Thomas**, and **Annobon** in the *Gulf of Guinea*; and **Madagascar**, **Mauritius**, **Réunion**, **Zanzibar**, and **Socotra**, with the **Comoros** and other small groups in the *Indian Ocean*.

The **Canary Islands** in the *Atlantic*, and **Fernando Po** and **Annobon** in the *Gulf of Guinea*, belong to **Spain**.

**Madeira** and the **Cape Verde Islands** in the *Atlantic*, with **Prince's Island** and **St. Thomas** in the *Gulf of Guinea*, belong to **Portugal**. **Madeira** has been already described (see pp. 170-1).

The islands of **Ascension**, **St. Helena**, and **Tristan d'Acunha** in the *Atlantic*, and **Mauritius**, with the **Seychelles** and **Amirante Islands**, and **Socotra** in the *Indian Ocean*, belong to **Great Britain**, while **Zanzibar** and **Pemba** are under **British Protection**.

The island of **Réunion** or **Bourbon** is a **French Colony**, and **Madagascar** and the **Comoro Islands** are **French Protectorates**.

**THE CANARY ISLANDS**, in the *North Atlantic* and about 60 miles from the *African Coast*, are an integral part of the **Spanish monarchy**, and form one of the modern provinces into which **Spain** has been divided.

The **Canaries** consist of seven large and six small islands, arranged in two divisions—the western including **Teneriffe**, **Gomera**, **Palma** and **Ferro**,<sup>1</sup> and the eastern group, **Lanzarote**, **Fuerteventura**, and **Gran Canaria**. All the islands are mountainous and of volcanic formation. The **Pico de Teyde**, or **Peak of Teneriffe**, rises to the great altitude of 12,180 feet. They are for the most part fertile, well-watered, and productive islands, enjoying a warm and healthy climate. *Corn*, *dates*, *figs*, *lemons*, *wine*, *sugar*, *tobacco*, *cochineal*, and *barilla* are among their productions. The population (about 300,000) is wholly of **Spanish descent**. The chief towns are **Santa Cruz**, the principal port on the island of **Teneriffe**, and **Las Palmas**, the seat of government on **Grand Canary**.

**THE CAPE VERDE ISLANDS** are an extensive group to the south of the **Canary Islands**, and 450 miles to the west of **Cape Verde** on the *African Coast*.

These islands are 14 in number, the largest and most fertile of them, **Santiago**, having an area of 400 square miles. They are less fertile than either **Madeira** or the **Canary group**, but some *cotton* is grown upon them, and also the *sugar-cane*, with *oranges* and other *fruits*. *Salt* is one of their chief articles of produce. The population of the entire group numbers about 110,000. The principal towns are **Mindello**, on the island of **St. Vincent**, and **Porto Praya**, the capital, on the island of **Santiago**. **St. Vincent** is important as a coaling station for the *Atlantic steamers*, and as a telegraph station of the *Anglo-Brazilian line*.

The four islands in the *Gulf of Guinea*—**Fernando Po**, **Prince's Island**, and **St. Thomas** to the north, and **Annobon** to the south, of the equator—are

1. The island of **Ferro**, the most westerly member of the group, is remarkable from its having been long regarded by the ancients as the extreme westward point of the habitable globe, and was therefore selected as the initial point whence to measure longitude.



of volcanic formation, and may be regarded as a continuation of the remarkable chain of volcanic peaks which extends from the Cameroons towards Lake Chad.

**FERNANDO PO** (830 square miles), the largest of these four islands, belongs to Spain. It is extremely fertile, producing *sugar, cotton, coffee, tobacco, &c.*, but unhealthy. The magnificent cone of *Clarence Peak* rises to upwards of 10,000 feet, and its slopes are clothed with verdure from base to summit. A few Europeans, with about 1,000 Negroes, reside in *Clarence*, the chief place on the island.

**PRINCE'S ISLAND** (80 square miles) and **ST. THOMAS** (370 square miles), both of which belong to Portugal, are inhabited chiefly by a native race, among whom are a few Portuguese traders.

**ANNOBON**, which belongs to Spain, has an area of only 7 square miles, and, unlike the three larger islands, has a perfectly salubrious climate.

**ASCENSION**.—The British island of Ascension is nearly 1,000 miles distant from Cape Palmas, the nearest point on the West African Coast. It is only 35 square miles in area, and consists of a mass of volcanic rock, rising to a height of 3,000 feet above the sea.

This solitary oceanic island has a dry and most salubrious climate. It is under the control of the Admiralty; the governor is a naval officer, in command of a company of marines, which forms the garrison. *Georgetown*, on the north-west of the island, is the only settlement.<sup>1</sup>

**ST. HELENA**, another isolated island in the South Atlantic, 750 miles south-east of Ascension, and 1,200 miles from the nearest point of the African mainland, is a huge mass of rock, of volcanic origin, rising steeply out of the waters of the Atlantic, and reaching in its highest point 2,700 feet above the sea.

The coast of the island forms a perpendicular wall or cliff, the principal opening in which is on the north-western coast, where *Jamestown*, the capital, is situated. The interior exhibits a succession of hills and valleys, some of the latter very fertile and capable of producing *vegetables* and *fruits* in abundance. The climate is warm, but the position of the island, in the midst of a vast ocean, preserves it from the intense heat of the Torrid Zone. It has an area of 47 square miles and a population of about 5,000. *St. Helena*<sup>2</sup> is a British Crown Colony, and the strong fortifications which defend *James Bay* are always manned by a British garrison.<sup>3</sup>

**TRISTAN D'ACUNHA**<sup>4</sup> is the largest of a group of three islands, lying west by south of the Cape of Good Hope, at a distance of nearly 2,000 miles.

*Tristan D'Acunha* is a barren volcanic rock, the highest point of which reaches 6,400 feet above the sea. The inhabitants, about 100 in number, have a few sheep and cattle, and grow potatoes, &c. Provisions are sent them, at intervals, by the British Government.

**REUNION**.—The French island of Réunion or Bourbon, which has been a French Colony since 1649, lies about 400 miles east of Madagascar, and 110 miles south-west of Mauritius.

Réunion, which is about one-third part larger than Mauritius, contains two lofty volcanoes, and the whole island is of volcanic origin. The level tracts which stretch around the coast are very fertile, and the climate is healthy. The population numbers upwards of 180,000, two-thirds of whom are Creoles, the rest are Hindu and African coolies, and Malagasys. *Sugar, vanilla, cloves, and coffee* are the chief articles of produce. The chief town is *St. Denis*.

1. *Ascension* was discovered by the Portuguese on Ascension Day, 1501, hence its name. It was occupied by the British in 1613. The population, chiefly royal marines, is about 350.

2. *St. Helena* was discovered by the Portuguese in 1502, on *St. Helena's Day*, hence its name. The English took possession of it in 1651.

3. The chief interest attaching to *St. Helena* is derived from the fact of its having been, during the last six years of his life, the place of exile of Napoleon the Great, who died at Longwood in 1821. His body was removed to Paris in 1840.

4. Discovered in 1501.

**MAURITIUS.**—The beautiful and fertile island of Mauritius,<sup>1</sup> one of the most prosperous of all our colonies, lies in the Indian Ocean, about 500 miles east of Madagascar. With an area of only 705 square miles, it has a population of nearly 380,000, or 530 to the square mile, and a trade of between 5 and 6 millions sterling a year.

Mauritius is "famous for the wondrous beauty of the landscape, surpassing even that of Tahiti in the Pacific." Its surface exhibits a succession of hills and valleys; its volcanic soil was once covered by magnificent forests, which have been cleared and replaced by vast sugar plantations. The cultivation of the sugar-cane is the principal industry, and sugar forms fully three-fourths of the total exports. Rum, vanilla, aloe fibre, and cocoa-nut oil are also produced. The trade of Mauritius is carried on chiefly with the British Colonies of South Africa, Australia, and India, and with the United Kingdom.

The coast is fringed by coral reefs, in which there are only two permanent openings—one on the north-west coast, leading to the splendid harbour of **PORT LOUIS** (80), the capital of the colony, and the other on the opposite side of the island, leading to the harbour on which **Mahebourg**, the only other large town, is built.

**Dependencies of Mauritius.**—The twin groups of the *Seychelles* and the *Amirantes*, about 600 miles north-east of Madagascar, and 1,100 miles east of Zanzibar, together with the scattered groups of coral islands in the Indian Ocean, are dependencies of Mauritius.

The prosperous *Seychelles*, which are covered with a luxuriant vegetation, especially cocoa-nut palms and date trees, are 940 miles north of Mauritius; the coralline *Amirantes* are about 100 miles south-west of Mahé, the largest island of the *Seychelles* group. Of the numerous other islands administered by the Mauritius Government, the most important are the granitic islet of **Rodriguez**, 300 miles east of Mauritius, and the island of **Diego Garcia**, one of the *Chagos Archipelago*.

**SOCOTRA**, a British Crown Colony, is a large island 150 miles east of Cape Guardafui. Its surface is broken by gigantic mountains and limestone hills, and its sterile soil yields little beyond *aloes* and a few *dates*.

The inhabitants consist of a few thousand Arabs, and the island formerly belonged to the Sultan of Keshim, on the opposite coast of Arabia, by whom it was ceded to Great Britain in 1876, but it was not formally annexed until 1886. Socotra is important from its position at the entrance of the Gulf of Aden, on the direct route to India.

**MADAGASCAR**, the largest of the African islands, and, regarding Australia as a continent, the fourth largest island in the world, is 1,000 miles in length, and 350 miles at its greatest width, and has an area of about 230,000 square miles.

This great island, which, with the exception of the extreme southern part, lies wholly within the Tropics, is separated from the eastern coast of Africa by the broad and deep **Mozambique Channel**, the least distance between the island and the mainland being 230 miles. Though more than 2½ times the size of Great Britain, the population of Madagascar does not exceed 4 millions, divided into numerous tribes, of whom the *Hovas*, who occupy the plateau of Imerina in the central part of the island, are the dominant people.

<sup>1</sup> Mauritius was discovered in 1605 by the Portuguese, but was first settled in 1688 by the Dutch, who called it Mauritius, in honour of their Prince Maurice. Being abandoned by the Dutch in 1712, it was taken by the French, who held it until 1810, when it was captured by the English. In 1874, a terrific hurricane, which lasted four days, caused great damage.

Madagascar has high mountains running through it from north to south, and the whole interior forms an elevated plateau. A belt of low land extends round the coast, and is an extremely fertile, but most unhealthy, region. The whole island possesses great fertility, and abounds in tropical and sub-tropical plants and fruits. Its mineral resources include gold and silver, with iron, lead, and copper.

The native inhabitants of Madagascar, called the *Malagasy*, are a distinct race from the Negroes and Negroids of the African mainland, and are allied to the *Malay* family of mankind. The whole island is under the sovereignty of the intelligent and powerful Hovas, as the tribes dwelling in its most central province are called. The *Hovas* are estimated to number 1 million; the *Sakalavas*, in the west, also number about a million; but the *Betsimi Sarakas*, in the east, do not exceed half a million. There are many Creoles from Mauritius and Réunion, Arab traders and Negroes from the mainland, and a few Europeans in the coast towns.

At the beginning of the century, the *Malagasys* were all pagans, but, chiefly through the labours of English missionaries, most of the Hovas have been converted to Christianity, which is now the State religion in the island. Agriculture and cattle-rearing are the principal industries of the *Malagasy* people, but silk, woollen, and cotton fabrics are manufactured by primitive methods.

The government is an absolute monarchy—the Sovereign being advised by the Prime Minister, who is the real ruler of the country. To him, the governors, placed at all the ports and chief towns in the interior, are directly responsible.

**ANTANANARIVO** (100), the native capital, is situated on the high plateau of Imerina, near the centre of the island. The town is built on the slope of a steep hill, and is 200 miles from Tamatave, the chief port, on the east coast, and 230 miles from the port of Mojanga, on the north-west coast.

Besides the general protectorate of the whole island, France occupies as colonies the island of Sainte Marie or Nossi Burra, off the east coast, about 80 miles to the north of Tamatave; the island of Nossi-Bé, off the north-west coast, about 260 miles north of Mojanga; together with the colony and naval station of Diego Suarez, in the extreme north of Madagascar.

**THE COMORO ISLANDS.**—Midway between the north end of Madagascar and the mainland are the Comoro Islands, a group of four high and volcanic islands, of which **Great Comoro** and **Mohilla** are the nearest to the African Coast, and **Johanna** and **Mayotte** the nearest to that of Madagascar.

Mayotte is a flourishing French colony, exporting large quantities of sugar, rum, and vanilla. The other three islands are under the rule of the Arab Sultan of Great Comoro, and were taken under the protection of France in 1886. The bulk of the inhabitants, who number about 65,000, are Bantu negroes, and the entire group has an area of 760 square miles. The Arab and Malay traders carry on a brisk trade with Zanzibar, Mozambique, and Madagascar.

#### QUESTIONS ON THE ISLANDS OF AFRICA.

1. Name the principal islands on or off the coasts of Africa.
2. Which of them belong to Great Britain? Which are under British protection?
3. To what country do the Canary Islands belong?
4. Describe briefly the Cape Verde Islands. Name an important coaling and telegraph station in this group.
5. Name the four islands in the Gulf of Guinea. To whom do they respectively belong?
6. Say what you know of Ascension and St.

Helena. What event distinguishes historically the latter island?

7. Where are the islands of Réunion and Tristan d'Acunha?

8. Define the position of Mauritius. What are the chief products of the island? Name its dependencies, and point them out on the map.

9. Where is the island of Socotra. Why is it of some importance?

10. Give a short account of Madagascar.

11. Where are the Comoro Islands?

1. By a treaty signed December, 1885, Madagascar became a French Protectorate, which, by the Anglo-French Agreement of 1890, was recognized by England. There is a French Resident-

General at Antananarivo, and French Vice-Residents at Tamatave, Mojanga, and in the Betsileo country, and Agents are stationed at all other important places in the island.

## AMERICA.

The great western continent, or the "New World," as America is called, lies between the Atlantic and the Pacific Oceans, and extends from the unknown regions about the North Pole, to within 2,350 miles of the South Pole, a distance of over 9,000 miles. The western or Pacific Coast of America is remarkably regular, but the eastern or Atlantic Coast is so deeply indented, that the two great masses, into which the country is divided, are united only by a narrow isthmus—the **Isthmus of Panama**.

Each of the two great divisions—**North America** and **South America**—are continental in point of magnitude, North America having an area of about 9 million square miles, and South America, 7 million square miles, and are thus regarded as forming two continents. The narrow isthmus-region between the two main masses is distinguished as **Central America**. The greater part of North America is west, and nearly all South America is east, of the 80th meridian of West longitude. Central America lies between the meridians of 70° and 100° West longitude.

The width of the American continent varies exceedingly, being 3,100 miles under the 45th parallel N. lat., 3,200 miles under the 5th parallel S. lat., while the intermediate isthmus is, at one part, only 28 miles across. To the north, the land stretches east and west along the 70th parallel N. lat. for 2,500 miles, exclusive of Greenland, while to the south it rapidly decreases in width, and terminates in a group of islands. Owing to this comparative narrowness, the New World is less than one-half the size of the Old World. Its total area—16,000,000 square miles—is about 4 times the extent of Europe, and rather larger than that of Europe and Africa taken together.

The extreme points of the mainland are **Murchison Peninsula** (72° N. lat.) on the *north*; **Cape Froward** (53° 54' S. lat.) on the *south*; **Cape Branco** 84° 50' W. long.) on the *east*; and **Cape Prince of Wales** (168° W. long.) on the *west*.

Compared with the Old World, the greatest dimensions of America are from *north to south*, while those of the Old World are from *east to west*, and thus no part of the former is so distant from the sea as the central region of the latter. America also, notwithstanding its immense area, has no vast deserts like those which render so large a portion of the eastern continent barren and uninhabitable; and further, the almost unbroken continuity of the great ranges which skirt the western shores of America, has no parallel in the Old World.

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## NORTH AMERICA.

**NORTH AMERICA** is the northern division of the Western Continent, or the New World, and is much larger and far more important than South America, to which it is united by the narrow isthmus of Panama.

**BOUNDARIES.**—North America is bounded on the *north* by the Arctic Ocean, on the *east* by the Atlantic Ocean, and on the *west* by the Pacific Ocean. To the *south* it passes (below the 30th parallel) into a narrow region, within which are embraced Mexico and the States of Central America, and finally terminates in the Isthmus of Panama.

North America differs in *shape* from any of the continents of the Old World. Its greatest dimensions are from north to south, and it is of narrow proportions comparatively to its total magnitude; hence, the vast oceans on either side exercise a greater share of influence over its climate.

**EXTENT.**—The superficial extent of North America is estimated at 9,000,000 square miles, which is considerably more than double the size of Europe, and about half that of Asia.

The *greatest length*, from north to south, is 4,500 miles; and its *greatest breadth*, under the line of the 45th parallel N. lat., is 3,100 miles.

**COASTS.**—The northern and eastern coasts of North America are more indented than the western. “The northern coast is bold and rocky; the western coast rocky and precipitous; while the eastern coast is low and easily accessible.”

The *coast-line* is estimated at 24,500 miles, equivalent to 1 mile of coast to every 350 square miles of surface, a proportion of coast-line to surface of about half that of Europe, but more than twice that of Africa.

**1. Inlets.**—The principal inlets on the coast of North America are:—

On the *north*, Hudson Bay, an arm of the Atlantic, and the Gulf of Boothia and Baffin Bay, two arms of the Arctic Ocean.

On the *east*, the Gulf of St. Lawrence, the Bay of Fundy, the Gulf of Mexico, and the Caribbean Sea.

On the *west*, the Gulf of California, an arm of the Pacific, and other smaller inlets.

(1.) Hudson Bay, the “Mediterranean of North America,” is upwards of 1,000 miles long and between 500 and 600 miles broad, and has an area of 350,000 square miles. The principal inlets are *James Bay*, on the south, and *Chesterfield Inlet*, on the west. The broad inlet north of Southampton Island is called *Fox Channel*. Hudson Bay communicates with the Atlantic by a wide strait of the same name, and received its name from the gallant but unfortunate navigator, Henry Hudson, who discovered it in 1610.

(2.) Baffin Bay (so called from William Baffin, who explored it in 1616) lies between Greenland and the Arctic Archipelago, and is upwards of 300 miles long. It communicates with the Atlantic by *Davis Strait* and with the Palæocrystic Sea to the north, by *Smith Sound*, *Kennedy Channel*, and *Robeson Channel*. It is navigable from June to September, but during the rest of the year is so encumbered with floating and fixed ice as to be impassable. The Gulf of Boothia is a large indentation on the Arctic Coast of America, and is connected with Baffin Bay by *Prince Regent Inlet* and *Lancaster Sound*, and with the Arctic Ocean by *Bellot Strait*, *Franklin Channel*, *Melville Sound*, and *McClure Strait*.

(3.) The Gulf of St. Lawrence is enclosed on three sides by Newfoundland and the coasts of Canada and Nova Scotia. To the west, it opens into the wide estuary of the St. Lawrence; to the east, it communicates with the Atlantic by three openings—the broad *Cabot Strait* between Newfoundland and Cape Breton Island, the narrow *Strait of Belle Isle* between Newfoundland and the Labrador Coast, and the still narrower *Gut of Canso*, between Cape Breton Island and Nova Scotia. This gulf is deep, but thick fogs greatly endanger its navigation in summer, and in winter it is entirely frozen over.

(4.) The Bay of Fundy, between Nova Scotia and New Brunswick, is remarkable for its strong and rapid tides, which at the equinoxes attain the astonishing height of 70 feet.

(5.) The **Gulf of Mexico** is an oval-shaped basin with an extreme diameter of more than 1,000 miles, and an area of 800,000 square miles. It communicates with the Atlantic by the *Strait of Florida*, and with the Caribbean Sea by the broader *Channel of Yucatan*. Except near the shore, the navigation is easy, but it is subject in winter to violent winds called "Nortes." The characteristic features of this gulf are the high temperature of its water and its being the *cul-de-sac*, whence issues the most important thermal current of the Atlantic—the Gulf Stream.

(6.) The **Caribbean Sea** lies between the coasts of Central and South America on the west and south. Vessels enter this sea from the Atlantic by the *Mona*, *Windward*, and other numerous "passes" or channels between the islands of the West Indies, which limit it on the east. The Caribbean Sea extends east and west for about 1,800 miles, and north and south for upwards of 1,000 miles.

(7.) The **Gulf of California**, the largest of the inlets on the Pacific Coast of America, has an average breadth of 80 miles, and extends inland for 700 miles. Far more important, commercially, are the smaller indentations of **San Francisco Bay**, on the coast of California, and the **Gulf of Georgia**, between Vancouver Island and the mainland of British Columbia.

**2. Straits and Channels.**—The principal *straits* and *channels* are:—*Davis*, *Barrow*, *Melville*, *McClure*, and *Bering*, on the *north*; *Hudson*, *Belle Isle*, *Cabot*, *Canso*, *Florida*, and *Yucatan*, on the *east*; and *Juan de Fuca* and *Queen Charlotte Sound*, on the *west*.

*Davis Strait* connects Baffin Bay with the Atlantic Ocean. *Barrow Strait* (with *Lancaster Sound*, *Melville Sound*, and *McClure Strait*) connects Baffin Bay with the Arctic Ocean. *Bering Strait* connects the Arctic and Pacific Oceans, and separates the continents of North America and Asia. *Hudson Strait* connects Hudson Bay with the Atlantic Ocean.

**3. Capes.**—The principal *capés* are *Barrow* and *Bathurst* on the *north*; *Farewell* in Greenland, *Charles* and *Chudleigh* in Labrador, *Race* in Newfoundland, *Sable* in Nova Scotia, *Cod* in Massachusetts, *Hatteras* in North Carolina, *Sable* in Florida, *Catoche* in Yucatan, and *Gracias à Dios* in Nicaragua, on the *east*; and *San Lucas* in Lower California, *Mendocino* in California, *Blanco* in Oregon, *Flattery* in Washington, and *Prince of Wales* in Alaska, on the *west*.

The most *northerly* point of the American mainland is *Murchison Promontory*, the extreme point of *Boothia Peninsula*. This headland is, however, not much further north than the better known point of *Cape Barrow*. *Cape Charles* is the most *easterly* point of the mainland of North America, and *Cape Prince of Wales* the most *westerly* point.

**4. Peninsulas.**—The peninsulas of Labrador, Nova Scotia, Florida, and Yucatan are on the *east* side of North America; Lower California and Alaska on the *west*; and *Boothia* and *Melville* on the *north*.

The peninsula of Labrador terminates in *Cape Chudleigh*. Nova Scotia is joined to the mainland by the *Isthmus of Chignecto*, 17 miles across. Florida ends in *Cape Sable*, and Yucatan in *Cape Catoche*. Lower California terminates in *Cape San Lucas*, and Alaska in *Cape Prince of Wales*, the most westerly point of the American mainland.

**5. Isthmuses.**—The most important *isthmus* in the New World is that of **Panama**, which connects North and South America.

(1.) The **Isthmus of Panama** is a narrow region, of considerable length (between four and five hundred miles), which divides the waters of the two greatest oceans of the globe. Its breadth varies from less than thirty to between seventy and eighty miles.

**6. Islands.**—The islands on and off the northern, eastern, and north-western coasts of North America are exceedingly numerous. **Greenland** and other **Polar islands** on the north are the largest, but the **West Indies** and the **Canadian Islands** are the most important. The **Bermudas** are a group of islands in the Atlantic, 600 miles east of Cape Hatteras.

**Greenland**, although it has never been circumnavigated, is now known (from observations on the tidal currents) to be an island, and (regarding Australia as a continent) the largest in the world. The Canadian Islands include **Newfoundland**, **Cape Breton Island**, **Prince Edward Island**, and **Anticosti** on the east coast, and **Vancouver** and **Queen Charlotte Islands**, on the west coast. **Long Island** is on the eastern coast of the United States. **Prince of Wales Island**, **Baranoff**, **Kodiak**, and other islands are on the western coast of Alaska. The **West Indies** are an insular region of vast extent, and embrace a great multitude of islands, of various sizes and forms. The largest of the number is **Cuba**; the second in size, **Haiti**; the third, **Jamaica**; and the fourth, **Porto Rico**. All the rest are of much smaller dimensions.

**RELIEF.**—The three main features in the *relief* of the North American continent are (1) the great **Pacific Highlands**, which extend through the western part of North America, almost from the Arctic shores to the Isthmus of Panama, and are traversed by the Rocky Mountains and other high mountain chains; (2) the vast **Central Plains**, which descend gradually from the crests of the Rocky Mountains and include the **Mississippi-Missouri** and the **Great Lake** regions; and (3) the **Atlantic Highlands** in the eastern part of the continent, which extend from the northern coast of Labrador nearly to the Gulf of Mexico, and include the **Alleghany** and other ranges to the south of the **St. Lawrence**.

The **PACIFIC HIGHLANDS** include the system of tablelands and mountains of which the **Rocky Mountains** are the most important. They are several hundred miles from the shores of the Pacific, and the intervening country consists of a succession of plateaux, bordered on the west by the **Sierra Nevada**, the **Cascade Range**, and other mountain chains, which rival in altitude the main ranges of the Rocky Mountains, which reach in their highest elevations nearly 16,000 feet above the level of the sea. **Mount Brown** (15,900 feet) and **Mount Hooker** (15,700 feet) are two of the loftiest points. These and other lofty summits are within the middle and southern portions of the mountain system. To the north, the mountains diminish in height and sink into mere hills as they approach the shores of the Arctic Ocean.

Some of the mountains which skirt the Pacific Coast of North America attain a height that surpasses that of the Rocky Mountains. **Mount St. Elias**, on the border-line between British Columbia and Alaska, rises to a height of 19,500 feet, but **Mount Wrangell**, the culminating point of the North American continent, attains an elevation of 21,000 feet. In the Cascade Range, further south, **Mount Hood** and **Mount St. Helen** are both nearly 14,000 feet high, but **Mount Whitney** in the southern part of the **Sierra Nevada** rises still higher.

The entire region to the west of the Rocky Mountains consists of highlands, alternating with mountain chains and enclosed valleys. The most remarkable portion of this tract is the **Plateau of Utah**, a territory which is enclosed by mountain chains on every side, and has its own system of river drainage, like some of the interior plains of the Asiatic continent.

The highlands which stretch along the western side of North America are prolonged southward into the narrow regions of Mexico and Central America, the whole interior of which consists of elevated plateaux. The highest parts of the Mexican tablelands reach 9,000 feet above the sea. From these plateaux

rise numerous volcanoes, several of which attain a great height. The loftiest of the number is *Orizaba*, which reaches a height of 18,207 feet above the sea, and is the highest mountain in Mexico. *Popocatepetl*, another great cone, rises 17,515 feet above the sea.

The Tablelands of Central America, to the south-east, are less elevated than the Mexican tablelands. Their western side is bordered by a succession of lofty peaks, many of them active volcanoes.

**THE ATLANTIC HIGHLANDS** include the low Plateau of Labrador (about 2,000 feet in height) to the north, and the Apalachian Mountains to the south of the St. Lawrence, the principal ranges of which are the White Mountains in New Hampshire, the Green Mountains in Vermont, the Adirondacks in the north of the State of New York, the Alleghanies in Pennsylvania, and the Black Mountains in North Carolina. The highest peaks are *Mount Washington*, 6,288 feet, in New Hampshire, and the *Black Dome*, 6,707 feet, in North Carolina.

**THE CENTRAL PLAIN.**—The whole interior of North America, from the Gulf of Mexico to the Arctic Ocean, and from the Rocky Mountains to the Alleghanies, is a vast lowland plain, broken only by the "Height of Land," which extends from the Plateau of Labrador westwards between Hudson Bay and the Great Lakes, and forms the main water-parting east of the Rockies. To the north of this "Height of Land," the land slopes towards Hudson Bay and the Arctic Ocean, into one or other of which the rivers are discharged. To the south of it, the land inclines towards the Gulf of Mexico, and is watered by the great river Mississippi and its tributaries.

The Central division of the Great Plain of North America is the region of the prairies. These are vast natural meadows, which occupy the basins of the Upper Mississippi and Missouri, together with those of the Red River, the Assiniboine and the Saskatchewan. Nearer the mountains, the plain is often covered with trees. Alternate forest and prairie form, indeed, the distinguishing feature of nature in the New World.

**THE ATLANTIC COAST PLAIN.**—To the east of the Alleghany Mountains there is a lowland plain of some extent which borders the Atlantic Coast, and is, therefore, known as the Atlantic Coast Plain. There are extensive marshy tracts in some parts of this region towards the sea.

The lowland plains of the New World bear a much larger proportion to its entire extent than do the highland regions. America differs strikingly in this respect from the Asiatic continent. In Asia, the mountains and highlands fill up the great central regions of the continent, and the lowlands occupy its outer borders; in North America, the lowland plains constitute the great mass of the continent, while the highlands are limited to the vicinity of the ocean.

**RIVERS.**—The eastern half of North America possesses a magnificent system of navigable rivers, but the country to the west of the Rocky Mountains is poorly supplied with waterways. The four great rivers of North America are the St. Lawrence, flowing east into the Atlantic; the Mississippi, flowing south into the Gulf of Mexico; the Yukon, flowing west into the Bering Sea, an arm of the Pacific; and the Mackenzie, flowing north into the Arctic Ocean.

1. The St. Lawrence has a comparatively short course, but it pours into the sea an immense volume of water, derived from the Great Lakes, of which it forms the outlet. Towards its mouth it becomes a vast estuary, increasing, below Quebec, from 25 to upwards of 100 miles in width.

2. The Mississippi—measuring from the mouth of the river up to the source of its great tributary, the Missouri, is nearly 4,200 miles long—a greater length



of channel than belongs to any other river in the world. The Mississippi rises in the midst of the central plain, in *Elk Lake*, a little to the south of Lake Itasca. The Missouri rises in the Rocky Mountains, and joins the Mississippi about midway in the course of the latter river, a short distance above the town of St. Louis. The Mississippi has a vast number of tributaries, of which the *Arkansas* and the *Red River*, on the right bank, and the *Ohio*, on the left, are the most considerable. The Mississippi and its tributaries furnish an internal navigable system of 20,000 miles, which is unequalled on the globe, with the exception of that afforded by the Amazon and its branches in South America. The *Rio Grande del Norte*, which forms part of the boundary between the United States and Mexico, with other smaller rivers that drain the Gulf Plain to the east and west of the Mississippi, are also important streams. The Atlantic Coast is drained by numerous rivers—the *St. John*, *Hudson*, *Connecticut*, &c.—directly into the Atlantic.

3. The *Yukon River*, 2,400 miles in length, is one of the great rivers of the world, but, unfortunately, it flows for the most part through a desolate and almost uninhabitable region. The *Mackenzie River* is also an immense stream, but, though it discharges into the Arctic Ocean, its main feeders, the *Athabasca* and the *Peace Rivers*, flow through fertile and habitable prairie lands far to the south.

4. South of Alaska, the Pacific slope is drained by the *Fraser*, which discharges into the Gulf of Georgia; the *Columbia*, which has an extremely tortuous course of over 1,000 miles from the Rockies to the sea; the *Sacramento*, which enters the Bay of San Francisco; and the *Colorado*, which plunges through stupendous cañons to the Gulf of California.

**LAKES.**—The *lakes* of North America are more numerous and extensive than those of any other continent. Besides the five *Great Lakes* that belong to the basin of the *St. Lawrence*, all the northern part of the great plain, from the shores of *Hudson Bay* to the foot of the *Rocky Mountains*, exhibits a labyrinth of lakes and connecting river-channels.

The five *Great Lakes*—*Superior*, *Michigan*, *Huron*, *Erie*, and *Ontario*—have together an area of 98,000 square miles, which exceeds that of the whole island of Great Britain by 9,000 square miles. The largest of the *Great Lakes*, *Lake Superior*, is also the largest freshwater lake on the globe. It covers 32,000 square miles, which is about the size of Ireland, and receives more than 200 rivers. These lakes are united by channels which pass from one to the other, the whole forming a continuous body of water, and the *River St. Lawrence* connects them with the ocean. The water of *Lake Champlain*, in the United States, also passes, by the *River Richelieu*, into the *St. Lawrence*. The *River St. Lawrence* and the *Great Lakes* in its basin are estimated to contain more than half the fresh water on the globe.

Only one of the five great lakes—*Lake Michigan*—lies wholly within the United States. The boundary line between the United States and Canada passes through the rest. But all the lakes of the northern plain are within the Dominion. Of these, the largest are *Great Bear Lake*, *Great Slave Lake*, and *Lake Athabasca*, all connected with the *Mackenzie River*, and *Lake Winnipeg*, which is discharged by the *Nelson River* into *Hudson Bay*.

*Great Salt Lake*, in Utah, receives most of the drainage of the *Great Basin*. Its waters are more salt and bitter than those of the sea. Other considerable bodies of water are *Lake Chapala* in Mexico, and *Lake Nicaragua* in Central America.

∴ One thing deserving of special notice in the physical geography of North America, is the way in which its river basins are connected with one another—there being in several cases no intervening high ground between their respective waters. The source of one of the small tributaries of the *Upper Mississippi* is only a few

miles' distance from a stream (the Red River) which flows into Lake Winnipeg, and there is nothing but a tract of meadow between the two. Again, from Lake Wollaston (one of the smaller lakes of the great northern plain, to the south-east of Lake Athabasca) there issue two streams, one at each extremity of the lake. One of these streams ultimately finds its way into the river Churchill, which discharges into Hudson Bay; the other passes into Lake Athabasca, which belongs to the basin of the Mackenzie River. This peculiarity in the river drainage of the North American continent results from the generally level nature of its vast interior, and is highly important, as adding to its facilities for extended inland navigation.

### EXAMINATION QUESTIONS.

1. What isthmus connects North and South America?
2. By what oceans is North America bounded on the east, north, and west?
3. What, in round numbers, is the area of North America? What proportion does this bear to the magnitude of Europe? What to that of Asia?
4. Name the seas, gulfs, &c., on the east side of North America.
5. Point to the following on the map:—the Gulf of Boothia, Gulf of California, Gulf of St. Lawrence, and Bay of Fundy.
6. What strait forms the entrance to Baffin Bay? What to Hudson Bay?
7. What straits and sounds connect Baffin Bay with the Arctic Ocean?
8. Name as many as you can of the principal capes of North America. Which is the most northerly? Which the most westerly?
9. What four peninsulas belong to the eastern side of North America?
10. What two peninsulas are on the western side of this continent?
11. Name as many as you can of the islands of North America.
12. In what characteristic do the highlands of the New World differ from those that belong to the Asiatic continent?
13. Name the two chief mountain systems of North America. Which of the two reaches the greater altitude?
14. What kind of country extends along the Pacific Coast of North America, between the Rocky Mountains and the sea?
15. In what part of North America are the following:—Mount St. Elias, the Plateau of Utah, and the tablelands of Mexico?
16. Name the highest among the volcanic cones that rise above the Mexican tablelands.
17. What portions of North America form a great lowland plain? By what mountains is this bordered on the east and west?
18. What are the prairies, and in what part of North America do they occur?
19. Among the rivers of North America, which two flow into the Gulf of Mexico? Which one into the Gulf of St. Lawrence?
20. What two rivers flow into Hudson Bay? Trace out their courses on the map.
21. Name as many as you can of the North American rivers that flow directly into the Atlantic, and trace them on the map.
22. What four rivers belong to the Pacific Coast of North America? Which one of them flows into the Gulf of California?
23. What three rivers flow into the Arctic Ocean?
24. Among the rivers of North America, which two are of superior importance to the others?
25. Which is the largest among the lakes of North America? What four other lakes, of large size, are connected with this?
26. Point on the map to the following:—Lake Winnipeg, Great Bear Lake, Lake Athabasca, Lake Nicaragua, and the Great Salt Lake.
27. What condition of physical geography deserves to be specially noticed in regard to the rivers of North America? Why is this important.

**CLIMATE.**—The climate of the New World is slightly colder, in corresponding latitudes, than that of the Old World. This is the case both in North and South America, but is more especially so in the former. This is easily accounted for. The broadest parts of America are those which stretch into its higher latitudes; within the tropics, North America is narrowed by the near approach of the oceans upon either side.

1. The American climate is also, for the most part, moister than that of the eastern division of the globe. The quantity of rain which falls in some parts of tropical America is surprisingly great—exceeding greatly the rainfall of southern Asia and the neighbouring archipelago. Within temperate latitudes, the amount is generally greater than in corresponding regions of the Old World.

2. The eastern side of North America is colder than the western side, and is also liable to greater extremes of heat and cold at opposite seasons. In these respects, the northern half of the New World resembles the European and Asiatic continents, upon the other side of the globe. All the country to the east of the Rocky Mountains is liable to severe winters, and to summers of intense heat. The Atlantic coasts of the United States and the regions adjacent to the Gulf of St. Lawrence offer striking examples of this. Quebec is in nearly the

same latitude as Paris, but it has a lower average of yearly temperature, while its summers are hotter and its winters colder than those of the French capital. The coast of Labrador stretches through the same parallels of latitude as the shores of Britain, but the climate of the two regions is widely different. The winter of Labrador is one of intense and long-continued severity, and its shores are rendered unapproachable by ice during many months of each year.

3. The islands of the West Indies, the coasts of Central America, the low plain at the foot of the Mexican plateau, and the southernmost portions of the United States, are the *hottest* regions of North America. The *coldest* parts are those that stretch from Hudson Bay towards the shores of the Arctic Ocean.

**PRODUCTIONS.**—Of the natural productions of North America, the practically inexhaustible supply of the precious metals, as well as the more useful metals and minerals, is a characteristic feature. The native vegetation is also particularly rich and varied. Both the native vegetation and zoology of America differ greatly from those of the eastern continent.

1. **Minerals.**—The mineralogy of America is equally varied as that of the Old World, and is perhaps (in some respects) richer. The country lying to the west of the Rocky Mountains is one of the chief gold-producing regions of the world. California, Colorado, Idaho, and Nevada, within the United States, and British Columbia, further to the northward, are the great localities of auriferous deposits. Mexico is also a region of great mineral wealth, and its mines supplied at a former period considerable amounts of both *gold* and *silver*.

The countries on the eastern side of North America—especially in the neighbourhood of the Alleghany Mountains and the St. Lawrence basin—are rich in the more useful productions of the mineral kingdom—*iron* and other metals, with *coal*. The coalfields of the United States are of vast extent and great value. Coal also occurs in New Brunswick, Nova Scotia, and Cape Breton Island. Canada is also rich in ores of *iron*, *copper*, and *lead*.

2. **Plants.**—The native vegetation of the New World differs in many important particulars from that belonging to the continents of the Eastern Hemisphere. Many of the plants and trees that are common in the Old World are not found upon the opposite side of the Atlantic Ocean; while, on the other hand, the productions of the American soil are in numerous instances peculiar to that portion of the globe. Even in the case of plants which belong to the same *genus* (or family), the species that are found in the opposite hemispheres are nearly always distinct. These differences are independent of climate, for the plants (and also the members of the animal kingdom) that belong to either continent are continually transported by man to regions distant from their native seat, and are found to flourish wherever the conditions of soil and climate are suitable for their development.

(1.) The vegetation and zoology of the New World at the present time has become, in virtue of such changes, different in many respects from what it was three and a half centuries since, when Europeans first planted their footsteps upon its shores. Numerous plants, and also numerous animals, which were *then* only found within the limits of Europe or Asia, now flourish within the valleys of the Mississippi and the St. Lawrence; while, on the other hand, the native productions of America have become distributed over the different regions of the Old World.

(2.) The characteristic differences between the vegetation of America and that of the continents belonging to the eastern half of the globe are least marked within high northerly latitudes, and become greater with every advance towards a more southern sky. The lands that lie in proximity to the Arctic Circle possess many features in common, alike in regard to plants and animals.

(3.) Of food-plants native to the New World, maize (or Indian corn), among the cereals, and the potato, among tuberous roots, are the two of greatest im-

portance, and the distribution of which through other lands has conferred the greatest boon upon man. Maize is the only one of the cereals that is native to the American continent, but wheat, barley, oats, and rice are extensively cultivated.

(4.) The *manioc* (or cassava) and *arrowroot*—both belonging to the order of tubers<sup>1</sup>—are also among the native food-plants of America. The manioc-plant is a native of Central America, but is more abundantly distributed within the southern half of the New World. The *tobacco-plant*—now extensively diffused through other lands—is another of the characteristic productions of the American soil, though not exclusively a native of that region.

(5.) Plants of the *cactus* tribe are among the native productions of tropical America. The *asalea* and *magnolia*, among the ornaments of our greenhouses, are also derived from the New World.

(6.) The forests of North America are of vast extent, and the timber which they supply forms one of the most valuable commercial products of the continent. The variety of trees—most of the deciduous kind—is astonishingly great. But they exhibit, in nearly all cases, specific differences from the like trees that flourish in the corresponding latitudes of Europe and Asia.

3. **Animals.**—When America was first visited by Europeans it had none of the domesticated animals that are familiar to our common observation. Neither the horse, the ass, the common ox and sheep, the hog, the camel, nor the elephant, are native to the New World. Similarly, among carnivorous quadrupeds, the lion, tiger, leopard, and hyena are unknown in the American wilderness. The *puma* and the *jaguar*, natives of tropical America, are the most formidable of its carnivora; but they are decidedly inferior, both in strength and ferocity, to the lion and tiger of the Old World. In the higher latitudes of North America, the numerous *wolves*, *foxes*, and *bears*, with the Canadian *lynx*, exhibit nearer approach to the zoology of correspondent regions in the eastern half of the globe, and the *moosedeer* or elk supplies a parallel to the reindeer of northern Europe.

(1.) The *bison* or American buffalo is one of the most characteristic animals native to the American prairie, but it is now almost exterminated. The *musk-ox* and other members of the deer kind also occur. The *beaver* and numerous fur-bearing animals abound in the colder latitudes of the American continent.

(2.) The birds of America, and also the reptiles, insects, and other members of the animal world, are in nearly all cases different from those of other continents. The aquatic birds, within very high latitudes (that is, beyond the Arctic Circle), and also some of the members of the insect tribe in similar localities, offer the only exception to this. The true *humming-birds* are peculiar to America. The *rattlesnake* and the *boa-constrictor* are also American. The moist climate and abundant vegetation of the New World favour the development of the class of life to which the various members of the reptile and insect orders belong.

**INHABITANTS.**—The population of North America numbers about 85 millions, or 9 to the square mile—a density of only *one-tenth* that of Europe, or *one-fifth* that of Asia, but exceeding that of Africa, and nearly *twice* that of South America. The great majority of these are whites, members of the European division of mankind. The rest are Negroes, native Indians, and mixed races.

The *natives* of America is the red (or copper-coloured) Indian—one of the five leading varieties into which the human family is commonly divided.

1. Tubers are those plants which have knobs or lumps attached to their roots. The potato and the yam are the two most important of the

edible tubers. The dahlia, among flowers, is a familiar example of this class of roots. The dahlia is a native of Mexico.

The numbers of this race have greatly diminished since the period of European settlement in the New World, and they are still rapidly diminishing. Within the whole vast territory of the United States there are only about a quarter of a million of the native American race now left. They are more numerous within Mexico and the States of Central America, where the genuine Indian is intermixed with the members of the half-caste race.

The white population of the United States and Canada comprehends members of most European lands, but those of British descent are by far the most numerous. Hence the English language has become diffused over much the larger portion of the North American continent. Within tropical America, the Spanish tongue is generally prevalent, since the white population of Mexico and the Central American States is almost exclusively of Spanish origin.

**DIVISIONS.**—The following are the principal divisions of North America :—

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|----------------------------------|---------------------|
| 1. ARCTIC AMERICA.               | 4. MEXICO.          |
| 2. BRITISH NORTH AMERICA.        | 5. CENTRAL AMERICA. |
| 3. THE UNITED STATES OF AMERICA. | 6. THE WEST INDIES. |

#### EXAMINATION QUESTIONS.

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| <p>1. Describe the climate of the New World.</p> <p>2. Comparing the eastern and western coasts of North America, what characteristic difference of climate do they exhibit?</p> <p>3. Which are the hottest parts of North America? Which the coldest?</p> <p>4. What parts of North America constitute rich gold-producing regions?</p> <p>5. In what parts of North America are coal and iron abundant?</p> <p>6. In what respect do the plants and animals that are found within the New World in the present day differ from those which characterised it four centuries ago?</p> <p>7. Which parts of North America make the nearest approach in their native vegetation and zoology to the productions of a like kind in the Old World?</p> <p>8. Among food-plants, mention some that are indigenous to the New World. What other food-plants are extensively cultivated?</p> <p>9. Among the domesticated quadrupeds, name</p> | <p>some that were unknown to the New World at the period of its discovery by Europeans.</p> <p>10. Mention the principal native American quadrupeds.</p> <p>11. What animal represents in North America the reindeer of Northern Europe?</p> <p>12. Mention some of the characteristic examples among birds and reptiles.</p> <p>13. What conditions of the American climate favour the development of reptile and insect life?</p> <p>14. To what division of the family of man does the great majority of the population of North America belong?</p> <p>15. Besides the above, what other families of mankind are represented in the population of America?</p> <p>16. In which parts of North America does the English language prevail? In which parts does the Spanish tongue?</p> <p>17. Name the principal divisions of the North American continent.</p> |
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#### ARCTIC AMERICA.

**ARCTIC AMERICA** may be said to include not only the islands and coasts actually within the Arctic Circle, but also the great belt of Polar lands as far south as the 60th parallel of N. lat., and thus comprises the whole of the great island of **Greenland**, with the adjacent **Arctic Archipelago**, the northern portion of the **North-West Territories** of Canada, and the United States Territory of **Alaska**.

**GREENLAND** may either be regarded as the largest member of the Arctic Archipelago, or, more correctly, perhaps, as a Polar land distinct from America.

This huge Polar island, the largest in the world, if Australia is ranked as a continent, lies to the north-east of the mainland of North America, and is divided from **Baffin Land** and the **Arctic Archipelago** by a long channel, which,

under various names—**Davis Strait**, **Baffin Bay**, **Smith Sound**, **Kennedy Channel**, and **Robeson Channel**—extends continuously from the open Atlantic to the “Palæocrycitic Sea,”<sup>1</sup> as that part of the ice-covered Polar Ocean to the north of Robeson Channel is called. On the east, Greenland is divided by a broad channel—**Denmark Strait**—from Iceland.

Of the 176 inhabited settlements, the most noteworthy are **Frederiksthal**, the nearest to Cape Farewell, **Godthaab**, the residence of the governor of South Greenland, **Julfanshaab** and **Lichtenau**, on the site of the old Icelandic colonies, in the Southern Inspectorate; and **Godhavn**, on Disco Island, the residence of the governor of North Greenland, and **Upernavik**, in lat. 72° 40' N., which, except the little hamlet of **Tasiusak**, a few miles further north, is the northernmost settlement on the continent, and the most northerly permanent settlement in the world.

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**BRITISH ARCTIC AMERICA** is politically included in the vast Dominion of Canada, but in truth “the entire Polar regions of America, from Bering Strait to Baffin Bay and the whole territory of Greenland, nominally owned by three different powers—Denmark, Britain, and the United States—are the domain of the one race which can wrest a living from them; one of vast antiquity, which has adapted itself through ages of evolution to its terrible environments—the Eskimo.”

British Arctic America includes not only the apparently inextricable maze of “lands” and islands, intersected by innumerable channels, straits, and sounds, but also the inhospitable shores of the adjoining mainland, which stretches poleward, in the great **Peninsula of Labrador**, to the east of **Hudson Bay**. To the north and west of this great inland sea, two small peninsulas—**Melville Peninsula** and **Boothia Felix**—also run northward; the one reaching the 70° N. lat., and the other—the most northerly point of the American mainland—attaining a point (lat. 72° N.) only 1,260 miles from the North Pole itself.

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**ALASKA**.—The vast *Territory of Alaska*, which has an area of 580,000 square miles, or 10 times that of England and Wales, embraces the extreme north-western portion of the continent, together with the long chain of the **Aleutian Islands**, and a strip of the coast and the adjacent islands to the south of Mount St. Elias. Alaska belongs to the United States, and was acquired by purchase from Russia in 1867.

The 1,500 islands, that skirt the south-western coast of Alaska, are the northern portion of the great archipelago, which ends in Vancouver Island. The largest of the Alaskan islands is **Prince of Wales Island**; on **Baranoff Island**, the next in size, is **SITKA** or New Archangel, the capital of the territory.

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## BRITISH NORTH AMERICA.

**BRITISH NORTH AMERICA** embraces the whole of the northern half of the continent, except Greenland and Alaska. This immense territory, which is nearly as large as all Europe, is, with the exception of *Newfoundland* and *Labrador* and the small islands of *St. Pierre* and *Miquelon* off the south coast of Newfoundland, included in the **Dominion of Canada**.

**NEWFOUNDLAND**,<sup>2</sup> the oldest and, in many respects, the most peculiar British Colony, is a large island at the mouth of the Gulf of St. Lawrence.

1. i. e., The Sea of Ancient Ice.

2. Newfoundland was first discovered by Norwegians about the year 1000, and was visited by Cabot in 1497. The first settlement was made in 1623, and the first governor was appointed in 1723.

With an area of over 42,000 square miles, or one-sixth larger than that of Ireland, and with inexhaustible fisheries and large tracts of rich agricultural, mineral, and timber lands, the colony has a population of only 200,000, or less than that of Belfast.

The island is triangular in shape—the three extreme points being Cape Norman on the north, Cape Ray on the south-west, and Cape Race on the south-east. The coast-line, 2,000 miles in length, is deeply indented. The interior of Newfoundland has, until recent years, remained a *terra incognita*, and even yet Avalon Peninsula is the only part of the island containing any settlement more than a mile from the coast.

The climate is not so extreme as that of Canada, but, although the island could support an agricultural population numbered by millions, agriculture is practically unknown, and cod-fishing in summer, and seal-hunting in winter and spring, are the chief occupations of the people, but mining and lumbering are engaging an increasing amount of labour. The cod-fishery on the Grand Banks of Newfoundland is the most important in the world, but the islanders depend chiefly upon the less risky shore fishery.

Newfoundland possesses responsible government. The Governor is appointed by the Crown; the House of Assembly is elected by the people. The capital, ST. JOHN'S, is a town of over 30,000 people, beautifully situated on a splendid harbour—"one of the very best on the Atlantic coast"—on the eastern side of the Peninsula of Avalon. It is now connected by rail with Harbour Grace (7), on the west side of Conception Bay, and with Placentia, on Placentia Bay.

**LABRADOR.**—The adjoining coast territory of Labrador, from the Strait of Belle Isle on the south, to Cape Chudleigh, at the entrance of Hudson Strait, on the north, is politically attached to Newfoundland. Some of the most valuable fisheries—cod, herring, trout, and salmon—in the world, are found off the coast of this sterile region. Nain and Hopedale are the chief settlements, and there are also a few trading posts of the Hudson Bay Company.

**ST. PIERRE and MIQUELON** are two small islands off the south coast of Newfoundland. They belong to France, and are the sole remnants of her once vast North American possessions.

These barren and rocky islets, only 100 square miles in area, have a population of 6,000 persons, and are visited by between 2,000 and 3,000 ships—principally French vessels engaged in cod fishing—every year. France retains possession of them in accordance with the Treaty of Utrecht (1713).

#### EXAMINATION QUESTIONS.

1. What territories outside the Arctic circle may yet be said to form part of Arctic America?
2. Give a brief description of Greenland. What channels separate it from the Arctic islands to the west? Name the strait that separates Greenland from Iceland.
3. What part of the Dominion of Canada falls within the limits of British Arctic America?
4. To what country does Alaska belong? Point out the capital of the territory.
5. What portion of the North American continent is included in British North America?
6. Describe Newfoundland. What part of the adjoining mainland is attached to the colony?
7. Where are the islands of St. Pierre and Miquelon? To whom do they belong?

## THE DOMINION OF CANADA.

The magnificent **Dominion of Canada** embraces the whole of the mainland of North America to the north of the United States, except Alaska and Labrador, and all the adjacent islands, except Newfoundland, St. Pierre, and Miquelon.

This immense territory stretches right across the continent, from the **Atlantic** on the *east*, to the **Pacific** on the *west*, and from the **Great Lakes** and the **49th parallel** of N. lat. (which divides it from the United States) on the *south*, to the **Arctic Ocean** on the *north*.

**Extent.**—It is difficult to convey any idea of the vastness of the Dominion of Canada. From the Atlantic on the *east* to the Pacific on the *west* is a direct distance of more than 3,000 miles, while more than 2,000 miles of mountain and prairie extend between the International Boundary and the shores of the Arctic Ocean. With an area of 3½ million square miles—not including the area covered by the Great Lakes—the Dominion is nearly as large as Europe, and 40 times the size of Great Britain.

**Coasts.**—Bounded, as the Dominion is, by three oceans, it has, besides its numerous **inland seas**, many thousands of miles of **sea coast**. The older Provinces have 2,500 miles of sea coast and inland seas, while the sea coast of British Columbia alone is over 3,000 miles in extent, exclusive of minor indentations.

**RELIEF.**—By far the greater part of Canada is level—the only mountainous region is in the west, where the magnificent natural rampart of the **Rocky Mountains** forms the western boundary of the **Prairie Region** of Central Canada. Eastern Canada<sup>1</sup> is in parts hilly, but there are no extensive level plains and no high mountain ranges.

The portion of the **Rocky Mountains** in Canada is about 1,500 miles in length, and culminates in *Mount Brown*, 16,000 feet, and *Mount Hooker*, 15,690 feet. Between the Rocky Mountains and the Pacific Coast, and parallel with them, are other ranges—the **Gold Ranges** and the **Coast or Cascade Range**. The Pacific slope and the Atlantic slope of the Dominion are both heavily timbered, but the **Great Prairies** which extend from the Red River Valley to the foothills of the Rocky Mountains are almost treeless, though well grassed and with a soil of unsurpassed fertility.

Eastern Canada, as we have said, has no extensive plains or high mountain ranges. It has, however, a "**Height of Land**," insignificant in elevation, but of great physical and geological importance. The **Laurentian Mountains** or **Laurentides**, as this low and long range is called, really extend from the Atlantic to the shores of the Arctic Ocean. This Laurentian chain forms the water-parting between the basin of the St. Lawrence and those of the rivers flowing into Hudson Bay, except the Churchill and the Saskatchewan, which pierce it and discharge into the Bay. Further north, it forms the "divide" between the Mackenzie on the west and the Coppermine and other rivers on the east.

**RIVERS and LAKES.**—The splendid rivers and huge lakes of Canada, so easily interconnected by a few canals, form an unrivalled system of inland navigation, and powerfully influence the climate,

<sup>1</sup> Eastern Canada, in the following description, is taken as including the Provinces of Ontario, Quebec, New Brunswick, Nova Scotia, and Prince Edward Island; Central Canada as embracing Manitoba and the provisional Districts of Assiniboia, Alberta, Saskatchewan, Athabasca, Keewatin, and the rest of the North-

West Territory; while Western Canada is limited to the Province of British Columbia.

Eastern Canada is the great Woodland Region; Central Canada is the vast Prairie Country; while Western Canada forms the Mountain Region of the Dominion.



productions, and trade of the Dominion. No lake system in the world, except perhaps that of Equatorial Africa, approaches the **Great Lakes** of Canada in magnitude, which, with the mighty **St. Lawrence** and its tributaries, contain more than one-half of all the fresh water on the globe.

There are *four main river systems* in the Dominion:—(1) That of the **St. Lawrence**, in Eastern Canada; (2) that of the **Saskatchewan-Nelson**, in South Central Canada; (3) that of the **Mackenzie-Athabasca**, in North Central Canada; and (4) that of the **Fraser**, in British Columbia.

Of the numerous *minor* river systems, the principal are the **St. John**, on the Atlantic Coast, to the south of the **St. Lawrence**; the **Severn**, **Albany**, **East Main**, and other rivers which discharge into Hudson Bay; the **Coppermine** and the **Great Fish River**, in the Arctic Coast region, to the east of the Mackenzie; and the **Stikkeen** and **Skeena** in British Columbia.

The basin of the **ST. LAWRENCE**<sup>1</sup> includes not only the broad belt of country drained by the noble stream itself and its tributaries, but also the **GREAT LAKES**,<sup>2</sup> of which it forms the outlet. These lakes—Superior, Michigan, Huron, Erie, and Ontario<sup>3</sup>—though of immense size (their united area is 90,000 square miles, and exceeds that of Great Britain) have comparatively slight drainage areas, because of the nearness of the “Height of Land” and the southern water-parting, and thus streams gather almost at their very shores, and flow to feed the Mississippi or the Saskatchewan. In spite of this, the excess of rainfall over evaporation in the basin of the **St. Lawrence** is so enormous, that the river carries as much water to the sea as the Mississippi, whose drainage area is four times as large. The river and the lakes together contain 12,000 cubic miles of water, or more than one-half the fresh water on the globe. The lakes diminish in size and decrease in altitude from west to east.

In the Great Plains, which extend from Lake Superior to the Arctic Ocean and westward from Hudson Bay to the foot of the Rockies, there is a perfect labyrinth of lakes and watercourses, connected together by cross channels, or separated only by short portages.

In the **Saskatchewan-Nelson River System**, *Lake Winnipeg*, an immense sheet of water, 240 miles long and 55 miles wide, is, as it were, the central reservoir, as it receives the great navigable streams of the **Red River**, the **Assiniboine**, and the **Saskatchewan**, besides the overflow from **Lakes Manitoba** and **Winnipegosis**, and finds an outlet by the **Nelson River** into Hudson Bay.

The rest of the Great Central Plain, to the north and west of the rivers already named, belongs to the immense basin of the **Athabasca-Mackenzie**. The **MACKENZIE** is by far the largest river in the American section of the Arctic river-system. Measured from the source of either of its main tributaries—the **Peace River** or the **Athabasca**—this great river has a length of not less than 2,500 miles, of which not less than 2,000 miles are navigable for steamboats, while its drainage area, estimated to embrace more than half a million square miles, is double that of the **St. Lawrence**.

1. For a detailed description of the **St. Lawrence** and the Great Lakes, see the *Advanced Class Book of Modern Geography* (London, George Philip & Son).

2. The following statistics, relative to the Great Lakes, are taken from the *Canadian Handbook*:—

	Length	Breadth	Depth	Elevation	Area
	miles.	miles.	feet.	feet.	sq. m.
Superior	329	.. 170	.. 1,900	.. 600	.. 31,500
Michigan	329	.. 70	.. 700	.. 575	.. 22,400
Huron	290	.. 105	.. 1,000	.. 374	.. 21,000
Erie	240	.. 57	.. 200	.. 565	.. 8,000
Ontario	180	.. 55	.. 600	.. 235	.. 5,400

In order to gain as adequate an idea as possible of the scale of the lakes and rivers of Canada, the

student should compare the figures given with well-known areas at home. Thus, Lake Superior equals in length the distance from Berwick to Land's End, and has an area very nearly as large as that of Ireland, while the four smaller lakes would cover the whole of England and Wales and, with Lake Superior, the whole of Great Britain. The united length of these lakes is 1,440 miles, which is almost 500 miles less than the distance between Galway and St. John's, N.F.

3. Midway between Lakes Erie and Ontario, the Niagara River is precipitated over the great *Falls of Niagara*. The *Horse Shoes Fall*, on the Canadian side, is 178 feet high, and the *American Fall*, 180 feet.

The Pacific slope of the Dominion is drained by the Upper Columbia and the Fraser in the south, and by tributaries of the Mackenzie and the Yukon in the north.

**CLIMATE.**—The Dominion of Canada, extending from the latitude of the North Cape in Norway to that of Rome, naturally exhibits a great variety of climate. Generally speaking, it is severe and “formidable” in the north, but genial and temperate in the south. The summers in all parts of Canada are finer and hotter than those of England, but the winters are far colder. But in winter the air is dry, bracing, and exhilarating, and the climate of Canada is, on the whole, one of the healthiest and most favourable in the world to the highest development of man.

The Dominion, from its vast extent, has been truly said to possess all the climates of Europe, from the Mediterranean to the Arctic Ocean. In Ontario, the portion enclosed between the Great Lakes, in particular, enjoys a temperate and a delightful climate. In Quebec, the winter is long and severe—the St. Lawrence is frozen over and closed to navigation for about 140 days every year. But during the greater part of this time the sky is clear and the cold healthy and invigorating. The Maritime Provinces—New Brunswick, Nova Scotia, and Prince Edward Island—have, of course, a milder and more equable climate; and while Manitoba and the North-West have a “continental” climate—a hot summer being followed by a cold winter, and spring and autumn being of exceedingly brief duration—the coast region of British Columbia possesses an insular climate, having all the advantages of that of England without any of its disadvantages.

**PRODUCTIONS.**—Immense forests, luxuriant pastures, fertile wheat lands, inexhaustible fisheries, and vast stores of mineral wealth—these are the most important of the rich and varied resources of Canada.

Canada possesses thousands of square miles of the finest forests, and forest products constitute one of her main sources of wealth. Canadian forests are rich in a great variety of the most useful and valuable trees, which yield lumber of many kinds for building purposes, for furniture and, in many parts of Canada, for fuel. Among the varieties are the *maple, elm, ash, cherry, beech, hickory, ironwood, pine, spruce, balsam, cedar, hemlock, walnut, oak, butternut, basswood, poplar, chestnut, mountain ash, willow, and black and white birch.*

But, besides her magnificent forest trees, the fruit trees of Canada are unsurpassed, and fruit-growing is a very important industry in Eastern Canada. *Apples, pears, plums, peaches, apricots, grapes, and berries* of every description grow luxuriantly, and attain a size and flavour unknown in Europe.

The wheat lands of Canada possess all the advantages of the regions to the south, but in richness, fertility, and extent, infinitely greater. And not only wheat, but oats, barley, potatoes, and other vegetables come to perfection over the greater part of the settled and cultivable portions of the Dominion.

**Animals and their produce** are a greater source of wealth to Canada than even her immense forests. All the ordinary domestic animals thrive wonderfully on the rich pastures, and *live animals, meat, butter, cheese, eggs, hides, skins, and wool* form the largest items in the exports.

Of **wild animals**, the *bison* or *buffalo* is now almost extinct; the *grizzly bear* is still found in the Rocky Mountains; the *moosedeer, sable,* and other *fur-bearing animals* are more widely distributed.

The fisheries of Canada are the largest in the world, embracing fully 8,000 miles of sea coast, in addition to inland seas, innumerable lakes, and a great number of rivers. Nearly 70,000 men and 30,000 boats are employed in the fisheries, and the annual value of the produce amounts to  $3\frac{1}{2}$  millions sterling.

Canada is marvellous rich in minerals, and there are vast deposits of coal and iron, with copper, gold, silver, nickel, and other useful metals and minerals. The coalfields of Canada are of immense extent, and many mines on the Atlantic and Pacific coasts, and in the North-West and the Rocky Mountains, are actively worked.

**INHABITANTS.**—Canada had, in 1891, a total population of over  $4\frac{1}{2}$  millions, which is a small number for so large and richly-endowed a country.

The great bulk of the population are of *British* descent, except in the case of Quebec, where the majority are of *French* origin—descendants of the settlers in Canada prior to its falling under the rule of Great Britain in 1763. The *Indians* are comparatively few in number, only about 123,000. A few tribes of *Eskimo* live along the Arctic Coast from the mouth of the Mackenzie to Labrador.

About  $2\frac{1}{2}$  millions of the people are Protestants, and nearly 2 millions are Roman Catholics. In no country in the world is education so generally diffused.

**INDUSTRIES.**—Canada is mainly an agricultural and pastoral country, largely covered with forests, the produce of which, until recently, formed the chief source of wealth and the most important item of export. **Fishing and mining** are also important industries, but **manufactures**, which are chiefly connected with the main industries, are as yet in their infancy.

The industries of Canada include the **cultivation of the soil** and the growing of enormous quantities of wheat and other cereals, and of all kinds of fruits and vegetables; the **rearing of cattle, sheep, and horses**; and the **manufacture of cheese and butter** on a very large scale.

**Trade.**—The trade of Canada is larger than that of any other British Colony, and is mainly carried on with the **United States** and the **United Kingdom**. Annual value, about 45 millions sterling.

**Ports.**—The chief ports of Canada are **Halifax** in Nova Scotia, **St. John** in New Brunswick, **Quebec** and **Montreal** on the St. Lawrence, **Ottawa** on the Ottawa River, **Toronto** on Lake Ontario, and **Vancouver** and **Victoria** in British Columbia. Canada stands *fifth* among maritime countries in tonnage of shipping owned and registered in the country. Over 65,000 vessels—about 70 per cent. of the whole under the British flag—enter and leave Canadian ports every year.

**Canals.**—The **canals** of Canada and the **river improvements** are works of immense importance, which have largely increased the trade of the country.\*

**Railways.**—Canada has about 14,000 miles of railway open for traffic, and about 4,000 miles in course of construction or arranged for. The three principal

1. Cod is the most abundant and valuable catch on the Atlantic Coast, and salmon on the Pacific Coast. Over 20 millions lbs. of salmon are canned every year on the Fraser River in British Columbia. Trout are everywhere abundant, but especially in Lake and River Nipigon in Ontario.

2. From the sea to Montreal, the St. Lawrence

is navigable for vessels of any size. Above Montreal there is a system of canals to overcome the Rapids of the St. Lawrence and the difference in the levels of the Great Lakes, which affords uninterrupted navigation from the Strait of Belle Isle to the head of Lake Superior, a distance of 2,384 miles, of which only 71½ miles are canals.

systems are the **Canadian Pacific Railway** (5,186 miles), the **Grand Trunk Railway** (3,114 miles), and the **Inter-Colonial Railway** (894 miles).<sup>1</sup>

**GOVERNMENT.**—The Government of Canada is Federal. The *executive authority* of and over the Dominion is vested in the Queen, in whose name the Governor-General, aided by a Privy Council, carries on the government. The *legislative power* is vested in a Parliament, consisting of an Upper House, called the Senate, and a House of Commons. The political capital and seat of the Federal Government is **OTTAWA**.<sup>2</sup>

The ordinary public Revenue amounts to about 8 millions, and the ordinary public Expenditure to 7½ millions. The Public Debt, which amounts to nearly 49 millions sterling, has been chiefly incurred in the construction of railways, canals, and other public works.

With the exception of a garrison of 2,000 men at Halifax, there are no Imperial troops in the Dominion. The colonial forces comprise an active volunteer and marine militia of about 37,000 men. The total number of men, liable to be called on for active service, exceeds a million.

Each of the provinces forming the Dominion has a separate Parliament, with a Lieutenant-Governor, appointed by the Governor-General, at the head of the Executive.

**DIVISIONS.**—The Dominion of Canada is a confederation of seven Provinces—*Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, and British Columbia*; four Districts—*Assiniboia, Saskatchewan, Alberta, and Athabasca*, which together form the **North-West Province**; together with the district of *Keewatin*, and two Territories—the *North-West Territory* to the west, and the *North-East Territory* to the south and east, of Hudson Bay.

THE MARITIME PROVINCES of Canada include *Nova Scotia*, the most easterly Province of the Dominion, and the adjoining Provinces of *New Brunswick* and *Prince Edward Island*.

1. **NOVA SCOTIA.**—The Province of **NOVA SCOTIA**<sup>3</sup> includes the peninsula of *Nova Scotia* and the island of *Cape Breton*, which together have an *area* of over 20,000 square miles—one-fifth of which is covered with lakes and small rivers—and a *population* of about half a million.

(1.) *Nova Scotia* is united to *New Brunswick* by the narrow and fertile *Isthmus of Chignecto*, and is divided from *Prince Edward Island* by *Northumberland Strait*, and from *Cape Breton Island* by the *Gut of Canso*. *Cape Breton Island* is nearly bisected by a remarkable fiord, the *Bras d'Or*. The coasts of both these divisions are indented by numerous inlets, some of which form magnificent harbours.

(2.) Both *Nova Scotia* and *Cape Breton* contain an abundance of valuable

1. Or 1,227 miles including the *Prince Edward Island Railway*.

2. Canada is said to have been discovered in 1497 by *Sebastian Cabot*, but its history dates only from 1534, when the French took possession of the country. *Quebec*—the first settlement—was founded by them in 1608. A series of wars between the English settlers in the *New England States* and the *French Canadians* culminated in 1759 in the capture of *Quebec* by *Wolfe*, and the subsequent cession of the whole territory to *Great Britain* by the *Treaty of Paris* (1763).

3. *Nova Scotia* was discovered by *Cabot* in 1497, and was colonised by the *French*. It was taken or retaken four times by the *English*, and was finally ceded to *England* by the *Treaty of Utrecht* (1713).

4. *Cape Breton Island* was also discovered by *Cabot* in 1497. The fortress of *Louisbourg*, on the south-east coast, was taken by the *English* in 1758, and the island was finally ceded to *Great Britain* by the *Treaty of Paris* (1763).

timber, but the Province is chiefly famous for its coal mines. Iron ore and gypsum are plentiful, and some gold is produced. Fruit-growing, dairy-farming and stock-breeding are gradually progressing, but the chief industries at present are mining, lumbering, and fishing. The climate is not so rigorous as that of Canada Proper, and is remarkably healthy. Halifax and the other ports on the eastern coast are open all the year round, while the St. Lawrence to the north is annually frozen over. The people are mainly of British or French descent, but there are a few thousand coloured people and some two thousand Indians.

(3) The Provincial Government is administered by a Lieutenant-Governor, aided by an Executive and a Legislative Council and a Legislative Assembly. The principal towns are Halifax and Sydney. HALIFAX (42), the capital of the Province, is distinguished chiefly for its fine harbour, and is the principal winter port of Canada, with all parts of which it is connected by rail. It is also the chief British naval station and the headquarters of the British Army in North America. Sydney, the chief town of Cape Breton Island, has a considerable trade, chiefly in coal, but fishing is the main industry of the islanders.

2. **NEW BRUNSWICK**<sup>1</sup> borders on the south-western side of the Gulf of St. Lawrence, and is bounded on the south by the Bay of Fundy, on the east by the State of Maine, and on the north by the extreme south-eastern portion of the Province of Quebec. The Province has an area of 27,300 square miles, and a population of about 400,000.

(1.) The boundary between New Brunswick and Quebec is formed by the *River Restigouche*, which flows into *Chaleur Bay*, an inlet of the Gulf of St. Lawrence. On the west, the *River St. John*, a straight line from the *Grand Falls* of the St. John to the *Chiputneticook Lakes*, and thence the *River St. Croix*, which flows into *Passamaquoddy Bay* (an inlet of the Bay of Fundy), divide this Province from the State of Maine. On the south, the boundary is formed by the *Bay of Fundy* and *Chignecto Bay*, and a line drawn across the *Isthmus of Chignecto*, which unites New Brunswick and Nova Scotia.

(2.) The chief physical feature of New Brunswick is the *River St. John* (400 miles long), which is navigable for small vessels to FREDERICTON (85 miles inland), and for boats to the Grand Falls, 200 miles from the sea. The valley of the St. John forms a narrow and, on the whole, level plain, rising in the east into a plateau of considerable height, which extends to the level belt along the east coast. North of the uplands, the country is drained by the *Miramichi* (which enters *Miramichi Bay*) and the *Restigouche*.

(3.) Both the uplands and the valleys are covered with magnificent forests of pine and other woods, and the produce of the forest forms the chief export. Agriculture is also much attended to in the lower districts—the *intervale* lands along the rivers are extraordinarily fertile—but, next to the forests, the chief wealth of the Province lies in its valuable fisheries, in which over 10,000 men are employed. Shipbuilding is also an important industry.

(4.) The people are mainly of British descent, but there are many descendants of the old French settlers and a few Indians. The Government is administered by a Lieutenant-Governor, aided by an Executive Council, and a Legislative Council and Assembly.

(5.) The chief towns are Fredericton and St. John. FREDERICTON (8), the capital of New Brunswick, stands on the River St. John, 80 miles above its mouth; but the town of St. John (50, including Portland), at the outlet of the river into the Bay of Fundy, is much more populous and commands the chief share in the maritime trade of the Province.

1. New Brunswick was colonised by the French of Acadia until 1713, when it was ceded to England, and formed part of the French colony of Acadia.

3. **PRINCE EDWARD ISLAND**<sup>1</sup> is within the southern portion of the Gulf of St. Lawrence, and lies opposite the shores of Nova Scotia and New Brunswick, from which it is divided by Northumberland Strait. The island, which is 130 miles long and 34 miles broad, is the smallest of the Canadian Provinces, being a little over 2,000 square miles in area, with a population of 115,000.

(1.) The coasts of Prince Edward Island are so deeply indented that no part of it is more than 8 miles from the sea. The interior is, on the whole, level, and is still largely covered with forests. The soil of the cleared districts is very fertile, and agriculture is the chief industry. Unlike the adjoining provinces of Nova Scotia and New Brunswick, its mineral productions are unimportant. The fisheries, however, are valuable, and large numbers of horses and cattle are reared. The climate is extremely healthy, and it is no unusual thing on this favoured island to find people who have reached the age of a hundred years, without having known a day's illness.

(2.) The Provincial Government is similar to that of the other Provinces of Canada. A railway runs right through the island connecting all the chief places with Charlottetown, the capital and chief port.

4. **QUEBEC**.<sup>2</sup>—The Province of QUEBEC includes that portion of the St. Lawrence valley which is towards the mouth of the river and below the junction of the Ottawa. On the north, this Province is bounded by James Bay, the East Main River, and the Esquimaux River; and on the west by the Ottawa River, which divides it from the Province of Ontario. South of the St. Lawrence, the boundary between Quebec and the United States is marked partly by the 45th parallel, the Green Mountains, and the rivers St. John and St. Croix. In the extreme east, the River Restigouche and Chaleur Bay divide it from New Brunswick.

(1.) The area is over 250,000 square miles, and the perimeter of the whole Province is about 3,000 miles, 740 miles of which are sea-coast and 2,260 miles land frontier. The island of Anticosti—a large uncultivated island, 145 miles long and 30 miles broad, in the Gulf of St. Lawrence, with the Magdalen Islands, a barren group also in the Gulf, belong to Quebec. The population of this vast Province is only about 1½ millions, an average of only 6 persons per square mile.

(2.) The great natural features of Quebec are the St. Lawrence and its tributaries, of which the principal are the Ottawa, St. Maurice, and Saguenay on the left bank, and the Richelieu, St. Francis, and Chaudière on the right. The northern affluents either rise in, or are connected with, a labyrinth of lakes, of which the most extensive is Lake St. John, drained by the Saguenay. Of the southern tributaries, the Richelieu rises in Lake Champlain, which is within the United States. The "Height of Land" forms the limit of the Lower St. Lawrence basin on the north.

(3.) South of the St. Lawrence, the country is for the most part level, fertile, and well cultivated, and, except in the extreme east, well peopled. North of the St. Lawrence, the settled and cultivated districts are confined to a narrow belt along the river between the mouths of the Ottawa and the Saguenay. North and east of the latter, the climate is so severe that cultivation is impossible. In the cultivated districts, large quantities of wheat, &c., are grown, but the chief wealth of the Province lies in its vast forests and productive fisheries.

1. Prince Edward Island was discovered by Cabot in 1497; taken by the English 1763; finally ceded to Great Britain at the peace of 1763.

2. The province of Quebec was formerly called Canada East or Lower Canada.

(4.) More than three-fourths of the people of Quebec<sup>1</sup> are descendants of the old French settlers, for Quebec was originally settled by, and long remained a valued possession of, France. Though they still adhere to their language and faith, the French inhabitants are intensely Canadian, and, since the union of the provinces, have lived in perfect harmony with their neighbours of British descent. The English portion of the Province is almost limited to the *Eastern Townships*, which lie close to Vermont and the United States frontier, and were originally settled by English Loyalists, who left the United States at the time of the War of Independence. The Government is vested in a Lieutenant-Governor, who is appointed by the Governor-General, and an Executive Council and two Legislative Chambers.

(5.) The principal towns are Quebec, Montreal, and Three Rivers. **QUEBEC** (68), the capital of the Province and the former capital of all Canada, stands on the north bank of the River St. Lawrence, in a commanding position, and is the seat of a very large timber trade.<sup>2</sup> **MONTREAL** (200), further up the St. Lawrence, is situated on an island in the river, immediately below the junction of the Ottawa. It is by far the largest town in Canada, and has a very large trade and considerable manufactures.<sup>3</sup> **Three Rivers**, at the confluence of the St. Maurice and the St. Lawrence, has a large lumber trade.

**5. ONTARIO.**<sup>4</sup>—The most populous and wealthy Province in the Dominion, lies between Quebec on the *east*, the North-East Territory and James Bay on the *north*, and the Great Lakes on the *south*. It extends from east to west for nearly 1,100 miles, and from north to south for 700 miles, and has an area of 223,000 square miles—nearly four times as large as England and Wales—and a population of 2½ millions.

(1.) This Province is divided from Quebec by the *Ottawa River*, and from the North-East Territory by the *Albany River*, which flows into James Bay, the southern extension of Hudson Bay. Between Ontario and the United States are the *Upper St. Lawrence, Lake Ontario, Niagara River, Lake Erie, the River Detroit, Lake St. Clair, the River St. Clair, Lake Huron, the River St. Mary, and Lake Superior*. Of the rivers running north, besides the Albany, the longest are the *Moose and Abitibi Rivers*, the latter flowing from a lake of the same name. Of the numerous lakes in the interior, the chief are *Lake Nipigon* in the west, and *Lake Nipissing* in the east.

(2.) The settled portion of Ontario is enclosed by the Ottawa and the St. Lawrence, and Lakes Ontario, Erie, and Huron. The rest of the country to the north and west is covered with immense forests of *pine, beech, oak, &c.* Formerly, the whole Province was forest-covered, and lumbering then formed the only occupation of the colonists. The extent of land under cultivation, however, has enormously increased within the last few years, and agriculture is now the chief industry in the southern counties. The vast mineral resources of the country are being actively developed. *Iron, lead, copper, gold, silver, tin, nickel*, and other metals are found in the neighbourhood of the Great Lakes. The *petroleum* wells of the peninsular portion of the Province are extremely productive.

(3.) The population has rapidly increased within recent years, and the people are mostly of British descent, but there are several thousand German and Dutch settlers, and about 18,000 Indians. The Provincial Government is

1. There are 18,600 Indians in the Province.  
2. Quebec is frequently called the "Gibraltar of America." Its fortifications are considered impregnable. The victory gained by the gallant Wolfe, in 1759, on the *Plains of Abraham*, immediately outside the town, ensured the transfer of Canada from French to English rule, and

preserves to Quebec a conspicuous place in the page of history.

3. The Grand Trunk Railway crosses the St. Lawrence at Montreal by the famous *Victoria Bridge*, the longest tubular bridge in the world.

4. Ontario was formerly called Canada West or Upper Canada. In 1794, the total population only amounted to 68,000.

similar to that of Quebec, and is administered by a Lieutenant-Governor, aided by an Executive and a Legislative Council. For administrative purposes, the Province is divided into 96 counties.

(4.) The principal towns of the Province are Ottawa, Toronto, and Kingston. **OTTAWA** (45), the Federal capital, lies on the River Ottawa, 90 miles above its junction with the St. Lawrence. It is also the centre of the Ontario *lumber-trade*, and its saw-mills are the largest in Canada. **TORONTO** (175), the Provincial capital, on the north-west shore of Lake Ontario, is, however, the largest city of Upper Canada. The "Queen City of the West," as Toronto is called, has great shipping interests on the lakes, and is the chief centre of the industries and trade of the Province. **Kingston** (16) is situated at the outlet of the St. Lawrence from Lake Ontario. Of the smaller towns, the most important are **Hamilton** (45), the "Birmingham" of Canada, on Burlington Bay (Lake Ontario), and **London** (27), on the River Thames, which flows into Lake St. Clair.

6. **MANITOBA.**—The Province of Manitoba is situated in the very centre of the continent, being midway between the Atlantic and the Pacific Oceans on the east and west, and the Arctic Ocean and the Gulf of Mexico on the north and south. It has an area of over 60,000 square miles and a population of over 125,000.

(1.) The climate of Manitoba, as the Marquis of Lorne remarked, has honest heat in summer and honest cold in winter; but, in spite of the extreme temperatures, the summers are very pleasant and the winters most enjoyable, the dry cold air being bracing and invigorating. The soil is a deep, rich, vegetable mould—the product of centuries of crops of grass which have grown, seeded, and withered on the prairie—and yields the finest and heaviest wheat in the world. Other grains and vegetables grow equally well, and horses, cattle, and sheep thrive on the nutritious prairie grasses.

(2.) Manitoba had no railway communication with the outside world until 1878; it is now traversed by the **Canadian Pacific Railway**, which passes through **WINNIPEG**,<sup>1</sup> the capital of the province, **PORTAGE LA PRAIRIE**, and **BRANDON**—the three largest of its towns. **Winnipeg** now has 30,000 inhabitants—in 1870 it had only 300.

**KEEWATIN.**—The district of **KEEWATIN**, which is under the government of Manitoba, extends along the western side of Hudson Bay, to the north of the "prairie province."

7. **THE NORTH-WEST TERRITORIES** embrace a vast region, which stretches from Manitoba to the Rocky Mountains and the Arctic Ocean. It is bounded on the south by the 49th parallel of North latitude, which divides it from the United States.

The basin of the Saskatchewan is the most fertile and valuable portion of these territories. Extensive forests, alternating with tracts of prairie-land, cover the southern division of this great region, which becomes colder with each succeeding parallel of latitude, until it passes, towards the extreme north, into a dreary and barren wilderness.

The fur-bearing animals, which have their homes in this extensive region,

1. Winnipeg is 1,623 miles west of Montreal, or about 200 miles further than Madeira from London, and the creation of the Province of Manitoba at so great a distance from the old provinces is another illustration of the immensity of our

Canadian domain. Yet, Manitoba is only in the centre of the continent after all, and is as far from British Columbia on the west as from Quebec on the east.—Grewell's *Geography of Canada*.



formerly supplied its sole produce of value, and the collection of their skins forms the object for which it is still frequented by the servants of the Hudson Bay Company. But it has immense capabilities of another description. Large portions of it abound in mineral deposits; and there are extensive tracts well suited for the purposes of agricultural settlement, which have within recent years attracted a large population, while, along the Canadian Pacific Railway and on the banks of the chief rivers, towns and villages are springing up with wonderful rapidity.

Four Provisional Districts have been formed out of the North-West Territories, namely, **Saskatchewan**, **Assiniboia**, **Alberta**, and **Athabasca**.

These Districts are at present under the rule of a Lieutenant-Governor and Council. The capital and seat of government is **REGINA**, on the Canadian Pacific Railway, in the District of Assiniboia.

**ASSINIBOIA**, which lies between **Manitoba** and **Alberta** and adjoins the **United States** on the south, has an area of 95,000 square miles, or nearly twice that of England. Many towns and villages have sprung up along the line of the *Canadian Pacific Railway*, which traverses the district from east to west. Among these may be mentioned **Broadview**, **Indian Head**, **Qu'Appelle**, **REGINA** (the capital of the district), **Moose Jaw**, **Swift Current**, and **Medicine Hat**.

**SASKATCHEWAN** is an immense district, 114,000 square miles in extent, situated to the north of Assiniboia and Manitoba, and traversed by the two branches of the great Saskatchewan River. This vast district has immense resources. **PRINCE ALBERT**, on the North Saskatchewan River, is the capital.

**ALBERTA** has an area of about 100,000 square miles, and is bounded on the south by the **United States**, on the east by the Districts of **Assiniboia** and **Saskatchewan**, on the north by the District of **Athabasca**, and on the west by **British Columbia**, from which it is separated by the main ridge of the Rocky Mountains. This district is not only rich in agricultural resources, but there are in it immense coalfields (worked to some extent at **Lethbridge** on the Belly River, and on the main line of the Canadian Pacific Railway, near **Banff**, in the recently-formed National Park). **CALGARY**, on the Bow River, is the chief town.

**ATHABASCA** comprises an area of 122,000 square miles, and is bounded on the south by **Alberta**, on the west by **British Columbia**, and on the north and east by the as yet unorganised territories of the **North-West**. **DUNVEGAN**, on the Peace River, is the chief settlement, and there are numerous trading posts of the Hudson Bay Company and several mission stations in the district.

∴ **THE NORTH-EAST TERRITORY** embraces the country bordering on the southern and eastern shores of Hudson Bay.

8. **BRITISH COLUMBIA**, the westernmost Province of the Dominion, is also the largest and yet the least populous. Its area, including **Vancouver**, **Queen Charlotte**, and other islands along the coast, is about 357,000 square miles, or 6 times that of England and Wales, but the population does not exceed 100,000, of whom only about 80,000 are whites, the rest being Indians and Chinese.

The natural features of British Columbia are extremely diversified. A deeply indented coast-line fringed with hundreds of islands, lofty mountains, numerous rivers and lakes, long, narrow, well grassed valleys, with dense forests of gigantic pines, combine to make this province the most picturesque portion of the continent.

Physically, British Columbia may be divided into four districts:—(1) the islands, (2) the mountains along the coast of the mainland, (3) the high interior plateau, and (4) the lofty mountain ranges that rise along the eastern border.

Of the *resources* of British Columbia it may be said that it has **magnificent forests**, while in the rich valley of the Lower Fraser, and on the south and east coasts of Vancouver Island, the soil is **exceedingly fertile**, and the climate is favourable to **agriculture and fruit-growing**. In the interior, also, the soil is, over very considerable areas (far exceeding in the aggregate the arable area of the coast region), as fertile as the best on the coast, but the climate is so dry in summer that irrigation is necessary, except in a few favoured localities. As regards pasture, the interior as a whole is probably unequalled for horse and cattle ranches. About 5,000 or 6,000 square miles of the Peace River district of British Columbia is also of considerable agricultural value.

The **fisheries** are as rich as those of Eastern Canada. The **salmon** of British Columbia is famous the world over. Millions of them make their way up the rivers, and the annual take from the Fraser River alone is over 10 million lbs. **Sturgeons** are numerous; **halibut** abound off Queen Charlotte Island; **cod** and **seals** are caught on the north coast; while the **oolachan** or candle fish enters the Fraser and the Nasse rivers and other streams by the million, for several weeks.

Minerals, however, form the chief wealth of the Province. As for **gold**, there is scarcely a stream in which the colour of gold cannot be found, and paying mines extend through a region of some 600 miles in length. The largest mines are in the *Cariboo* district, whence 10 millions sterling have been obtained since 1858. **Coal mines** are worked at *Nanaimo*, *Wellington*, and *Comox*, on the east coast of Vancouver Island, and there are inexhaustible deposits of iron ore on Texada Island and elsewhere.

The principal *towns* are **VICTORIA**, the provincial capital, which is picturesquely situated on a lovely harbour on the south-east coast of Vancouver Island, and has about 24,000 inhabitants; **Vancouver** (16), on the southern side of Burrard Inlet, the terminal port of the Canadian Pacific Railway, connected by a magnificent line of steamers with Yokohama and Hong-Kong; and **New Westminster** (8), a growing river-port, very pleasantly situated on the Fraser River about 8 miles above its mouth and 12 miles from Vancouver.

### QUESTIONS ON THE DOMINION OF CANADA.

1. What portion of the North American Continent is included within the Dominion of Canada?
2. Give some idea of its extent. How is the Dominion bounded?
3. What are the characteristic features in the relief of Canada?
4. Name and trace the courses of the principal rivers of Canada. How many of the great lakes are partly within Canada?
5. Where are the Falls of Niagara? Between what two lakes does the river Niagara flow?
6. Give some account of the climate of Canada.
7. What are the chief natural resources of the Dominion?
8. What do you know concerning the people of Canada, as to their origin and industrial pursuits?
9. What is the form of government in Canada? Name the Provinces and Territories included in the Dominion.
10. When was Canada discovered? Who were

the first settlers? When did Canada become a British possession?

21. Describe briefly the maritime Provinces of Canada.

22. State what you know of the Province of Quebec.

23. By what event is Quebec historically distinguished?

24. Give some particulars as to the natural features, climate, and productions, and the industries and chief towns of Ontario.

25. What are the boundaries of Manitoba? What is its most famous product?

26. Indicate the position of Keewatin and the North-West Territories. Name the four Provincial Districts that have been formed out of the North-West Territories.

27. Where is the North-East Territory.

28. Give some account of the natural features and productions of British Columbia.

29. What city is the terminus of the Canadian Pacific Railway. Name the capital and other important towns in the province.

## THE UNITED STATES.

THE UNITED STATES embrace the middle portion of North America, extending from the Atlantic to the Pacific, and from the Great Lakes to the Gulf of Mexico and the Rio Grande del Norte, together with the detached Territory of Alaska, which forms the north-western portion of the continent.

**BOUNDARIES.**—This vast country is bounded on the *north* by the Dominion of Canada, on the *south* by Mexico and the Gulf of Mexico, on the *east* by the Atlantic, and on the *west* by the Pacific. Alaska is surrounded by the sea, except on the east, where it adjoins the Dominion of Canada.

The **International Boundary** between the *United States* and *Canada* is partly natural and partly artificial. The **Great Lakes** and the **Upper St. Lawrence** divide the United States from Eastern Canada, but from the Lake of the Woods to the shores of the Gulf of Georgia, the boundary between Central and Western Canada and the United States is entirely artificial, being formed by the 49th parallel of North latitude. **Alaska** has been already described (*see p. 316*); the following description is therefore confined to the States and Territories to the south of the Dominion of Canada.

**EXTENT.**—The total *area* of the United States is more than 3,000,000 square miles, which is nearly as large as that of Europe and 60 times the size of England.

The average length of this great Republic is 2,500 miles, and its average breadth is 1,300 miles. Its greatest length, from Cape Cod to the shores of the Pacific, is about 2,800 miles, or 7 times the distance from Berwick to Land's End. Its greatest breadth, from the southern extremity of Texas to the borders of Canada, is about 1,600 miles, or rather more than 5 times the distance from Lowestoft Ness to St. David's Head.

**COASTS.**—The eastern coast is, on the whole, irregular; the western coast is, on the contrary, regular and unbroken by any considerable inlets. The total length amounts to 12,000 miles, equal to an average of 1 mile of coast to every 240 miles of area.

Of this extent, much the larger proportion—about *five-sixths*—belongs to the **Atlantic** and the **Gulf of Mexico**, while the coast-line on the **Pacific** is only about *one-sixth* of the whole.

1. **Capes.**—The chief *capes* are Cod, May, Charles, and Hatteras on the *east*; Sable on the *south*; Flattery, Blanco, Mendocino, and Conception on the *west*.

2. **Inlets.**—The principal openings are Delaware and Chesapeake Bays on the *east*; the Gulf of Mexico with Tampa, Pensacola, Mobile, and Galveston Bays on the *south*; and San Francisco Bay and Puget Sound on the *west*.

3. **Channels and Straits.**—Long Island Sound, between Long Island and the mainland; Pamlico Sound, on the coast of North Carolina; the Strait of Florida, between Florida and the Bahamas; and Juan de Fuca Strait, between Vancouver Island and the State of Washington.

4. **Islands.**—Rhode Island and Long Island on the east, and San Juan and other islands on the west.

**RELIEF.**—The great natural features of the United States are (1) a great elevated plateau, traversed by lofty mountain ranges and occupying the western half of the country; (2) a vast lowland, lying east of this plateau and bounded on the west by (3) a system of minor elevations which slope into (4) a low and narrow plain, extending along the eastern coast.

The first is known as the **Cordilleran Plateau** or the **Pacific Highlands**; the second includes the **Great Plains** and the **Mississippi Valley**; the third forms the **Appalachian Mountain System** or the **Atlantic Highlands**; and the fourth is the **Atlantic Coast Plain**, which merges into the **Gulf Coast Plain** and the **Valley of the Mississippi**.

The principal natural features of the country from the **Pacific Coast** to the **Atlantic**, are, first, the **Coast Ranges**, which skirt the shores of the **Pacific** from **Cape Flattery** southwards, and are divided by a long and narrow depression through which the **Sacramento** and its tributary the **San Joaquin** flow from the much loftier **Sierra Nevada**, which with the **Cascade Range** (divided from the **Coast Range** by the **Willamette River** and **Puget Sound**) further north, marks the western limit of the **Pacific Highlands**. These great uplands extend eastwards to the **Rocky Mountains** and are divided by the **Wasatch Mountains** into two portions—the **Great Basin** on the west and the **Colorado Plateau** on the east. To the east of the lofty ranges of the **Rocky Mountains**, the **Great Plains** slope gradually down into the **Mississippi Valley** and the basin of the **Great Lakes**—a vast lowland, generally quite level and uniform, and broken only by the **Ozark Hills** in Southern Missouri, and a low water-parting, separating the waters of the **Mississippi** from those of **Lake Superior** and **Lake Michigan**. To the east of this great **Central Plain**, the land again rises, but the short ridges and isolated groups of the **Appalachian Mountains** nowhere exceed 7,000 feet, or less than half the height of the loftier summits of the **Rocky Mountains**. From these highlands the country slopes gradually to the shores of the **Atlantic**. This **Atlantic Coast Plain** is narrow in the north, but broadens out towards the south, and is continued along the **Gulf Coast** into the **Great Central Plain**.

The **Rocky Mountains** consist of a double and sometimes triple line of ranges, in which scores of summits exceed 14,000 feet in height, while hundreds of peaks rise above 13,000 feet. But, lofty though the **Rocky Mountains** are, the **Sierra Nevada** and the **Cascade Mountains** are higher and more massive. Near the southern extremity of the **Sierra Nevada** is **Mount Whitney**, 14,878 feet in height, the loftiest mountain in the United States.

**RIVERS.**—The main water-parting of the United States follows the ranges and plateaux of the **Rocky Mountains**—the eastern slope being drained into the **Gulf of Mexico** or directly into the **Atlantic**, while the western slope, with the exception of the **Great Basin**, which has no outlet to the ocean, is drained into the **Pacific**.

There are thus three river systems—(1) the **Atlantic System**, which includes the rivers which enter the **Mexican Gulf** as well as those which flow directly into the **Atlantic**; (2) the **Pacific System**; and (3) the **Continental System** of the **Great Basin**.

The **Atlantic System**, or rather the **United States Section** of the **Atlantic River System**, includes part of the **St. Lawrence**, the only great North American river flowing directly into the **Atlantic**, together with the numerous rivers which drain the **Atlantic Coast Plain**, and the **Mississippi** and other rivers which discharge into the **Gulf of Mexico**. The **Mississippi** is by far the most important river in **North America**, which, with the single exception of the **Amazon** in **South America**, surpasses every other river on the globe, both in length and area of drainage. The other more important rivers of the **Atlantic**

System are the *Hudson, Delaware, Susquehanna, James, Roanoke, Savannah,* and *Altamaha*.

The **Pacific System** is, as a whole, inferior to that of the Atlantic, and the United States Section of it includes only three rivers of any magnitude, the *Columbia, the Sacramento, and the Colorado*.

The **Continental System** includes the streams that discharge into the lakes or 'sinks' of the Great Basin, none of which have any outlet to the ocean. Of these, the principal are the *Humboldt River, the Bear River, and the Jordan*.

**LAKES.**—**Lake Michigan and Great Salt Lake** are the largest lakes in the United States.

**Lake Michigan** is the only one of the Great Lakes belonging to the St. Lawrence Basin that is wholly within the United States. The other four lakes—**Superior, Huron, Erie, and Ontario**—are partly within Canada. **Lake Champlain** is almost entirely to the south of the International Boundary. The **Great Salt Lake** of Utah is the largest lake to the west of the Rocky Mountains.

**CLIMATE.**—So vast a territory as that of the United States necessarily comprehends a great variety of climate, but the greater part of the country may be said to enjoy a temperate climate, the mean annual temperature being 53° F., or a little higher than that of London.

But although the average temperature is not much greater than that of the British Isles, the extremes of summer and winter temperature are much more considerable, and the northern portion of the Atlantic seaboard and the Great Central Plain have intensely hot summers and extremely severe winters. Towards the south, and especially along the shores of the Gulf of Mexico, the heat of summer is very great, but the winters there are also mild.

**PRODUCTIONS.**—The natural resources of this great territory are abundant and varied. The United States include many of the most productive and fertile portions of the American continent. Their mineral wealth is great, and their agricultural capabilities are almost boundless.

None of the plants that produce the great staples of commerce are natives of the United States, but *wheat* and other cereals and many valuable plants have been introduced and are extensively cultivated.

The larger native wild animals, such as the *bison* or American buffalo, the *bear, elk, moose, &c.*, have almost disappeared. Immense numbers of **domestic animals** are now reared in all parts of the country, especially on the Great Plains and grass-lands to the east of the Rockies.

The mineral wealth of the United States is enormous. Exhaustless mines of *gold and silver* in the Western Highlands, with vast deposits of *coal, iron, copper, lead, petroleum,* and other valuable minerals in the eastern half of the country, in addition to immense agricultural resources, give the United States advantages unequalled by those of any other country on the globe.

**INHABITANTS.**—The population of the United States amounted, in 1890, to over 62½ millions, an average of 21 per square mile, or less than one-twenty-fifth of the density in England.

A hundred years ago, the United States had less than 4 millions of people, now it has 16 times as many. "No other country has ever increased in population so rapidly. The wilderness has given place to thriving farms; small hamlets have grown into great cities. Much of this rapid growth is due to im-

**migration.** Several millions, attracted by the superior advantages of the United States, have flocked thither from the Old World, particularly from Ireland and Germany, so that one-eighth of the population are of foreign birth." The people of the United States are, however, essentially British, and, until the great increase in immigration from Germany and other countries, the people were almost entirely of British origin. Out of the total population of 63 millions, about 55½ millions, or five-sixths of the whole, are whites, and of these nearly seven-eighths are native-born. The coloured population includes about 7 million negroes, most of whom are found in the Southern States, where they were slaves until 1865, when slavery was abolished. Only 250,000 Indians are left within the whole of this immense territory. There are also about 100,000 Chinese, mostly in the towns on the Pacific Coast.

**Education** is general and well advanced, especially in the North-Eastern or New England States. Common schools are maintained at the public expense, and there are a great number of higher schools and colleges. The oldest university (Harvard) was founded in 1636.

**Religion.**—There is no established form of religion in the United States. The various forms of Christianity are represented by numerous followers, and the members of each church support their ministers by voluntary contributions.

**INDUSTRIES.**—**Agriculture, manufactures, and mining** are the chief industries in the United States, and the produce of the field, the factory, and the mine, exceeds in value the industrial products of any other country.

**Agriculture** is the leading industry, and employs nearly one-half of the labour of the country. The soil of the eastern half of the country, especially in the Mississippi Valley, is, for the most part, remarkably fertile, and the yield of agricultural products is enormous; after home wants are supplied, large quantities remain for export. For cotton and grain, the United States are the chief source of supply to the countries that need them.

Immense numbers of cattle, swine, sheep, and horses are reared, and enormous quantities of butter and cheese, wool, &c., are produced, while millions of animals are annually slaughtered for the markets.

**Manufactures** are chiefly carried on in the eastern part of the country, and principally in the New England States—New York and Pennsylvania. **Mining** employs a very large number of people, both in the eastern part of the country, where most of the coal and iron mines, slate quarries, mines of lead, copper, zinc, &c., are situated, and also in the Western States, where gold and silver are found. **Fishing** also employs a considerable number of people, principally on the Atlantic coast. **Lumbering** is a most important industry in several of the Eastern States and also in the Pacific States, large portions of which are still covered by natural forests.

**Commerce.**—The commerce of the United States is of vast magnitude, and it is increasing so rapidly that the country must soon become the foremost commercial nation in the world. In foreign commerce, the United States is surpassed only by Great Britain and Germany, while the domestic commerce, or internal trade of the country, is much larger and more important than its foreign trade.<sup>1</sup>

The foreign commerce of the United States is carried on with all parts of the world, but chiefly with Western Europe (principally with Great Britain), South America, the West Indies, China, and Japan. About one-half of the foreign

1. The trade with Great Britain amounts to 177 millions sterling a year, or considerably more than one-third of the entire foreign commerce of the country, which, in 1890, amounted to 335

millions sterling. One-half of the domestic exports of the United States is sent to Great Britain, while one-fourth of the imports comes from that country.

trade centres in the port of NEW YORK; the other half is carried on mainly through the ports of BOSTON, the chief port of the New England States; NEW ORLEANS, the great Gulf port and commercial capital of the Southern States; SAN FRANCISCO, the commercial metropolis of the Pacific Coast; PHILADELPHIA, at the head of Delaware Bay; BALTIMORE, on Chesapeake Bay; SAVANNAH, in Georgia; GALVESTON, in Texas; CHARLESTON, in South Carolina; PORTLAND, in Maine; and MOBILE, in Alabama.

The chief exports are *cotton and cotton goods; wheat, wheat flour, maize, and provisions* (comprising meat and dairy products); *mineral oils, tobacco, and cigars; timber, iron, steel, and copper; cattle, leather, &c.* Total value, in 1890, 171½ millions sterling. Most of the general exports are sent out through New York. The cotton ports are New Orleans, Savannah, Charleston, Galveston, and Mobile. Richmond is a great tobacco port.

Most of the sea-borne trade of the United States is carried on in foreign vessels, chiefly British, and the proportion of the trade carried in American ships is continually decreasing, and now amounts to less than one-eighth of the whole.

The railway system of the United States is colossal, and about 170,000 miles are now in operation—a mileage nearly 7 times the circumference of the earth, and exceeding that of the whole of Europe. In the eastern division of the country the railways are very close and intricate, and several lines extend entirely across the continent from the Atlantic Ocean to the Pacific.

The rivers and canals of the United States are estimated to afford not less than 50,000 miles of navigable waterways, on which thousands of steamers ply.

**GOVERNMENT.**—The United States form a **Federal Republic**. Each of the States composing the Union has its own Government, while the whole unite in a general Government for the purposes of the Union at large.

The **Federal Government** of the United States is based on the Constitution of 1787, with amendments subsequently made. By the Constitution, the national Government is entrusted to three separate authorities, the **Executive**, the **Legislative**, and the **Judicial**. The *Executive* is vested in the **President**, who is elected for four years, but is re-eligible to office, and is *ex officio* Commander-in-Chief of the land and sea forces. The *Legislative* power belongs to an elective **Congress**, consisting of a **Senate** composed of two Senators from each State, and a **House of Representatives**, which consists of members elected by the various States and delegates from the Territories. The *Judicial* authority is vested in the **Supreme Court** at Washington. There are Circuit and District Courts subject to the Supreme Court in every State.

**WASHINGTON** (230), in the District of Columbia, a tract of country (72 square miles in area) on the left bank of the Potomac River, is the seat of the United States Government.

The *Revenue* has for many years greatly exceeded the *Expenditure*, and the *National Debt* is being rapidly reduced. The **Regular Army** of the United States amounts to no more than 28,000 men, while the organized militia in the several States numbers about 100,000 men. The **Navy** is being strengthened.

**DIVISIONS.**—The political division of the United States is into 44 States, 1 Federal District, and 5 Organised Territories.

1. The Revenue, which amounted to about 95 millions sterling in 1890, is mainly derived from Customs duties on imports, and internal revenue taxes on spirits, tobacco, &c. Nearly one-third of the National Expenditure in that year (over 70 millions sterling) was on account of pensions. The Public Debt has been reduced to less than 180 millions sterling.

**THE ATLANTIC STATES**, 17 in number, may be conveniently divided into three sections: (1) the New England States; (2) the Middle Atlantic States; and (3) the South Atlantic States.

**THE NEW ENGLAND STATES** are six in number—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. They extend from the Atlantic to the Valley of the River Hudson and Lake Champlain.

MAINE is still largely covered with forests, and lumbering and ship-building are important industries, but Portland (86), is the largest city. NEW HAMPSHIRE is the "Switzerland of North America." Concord (17) is the capital; Manchester (44) and Nashua (19) are important manufacturing towns. VERMONT is chiefly a farming country. Montpelier is the capital. MASSACHUSETTS ranks third among the manufacturing States of the Union, and second in foreign commerce, most of which passes through Boston (448), the capital of the State and the largest city in New England. Lowell (78), Fall River (74), Lawrence (45), Worcester (84), Springfield, Lynn (55), and Salem (80), are important manufacturing towns. At Lexington, 11 miles to the north-west of Boston, the first battle of the War of Independence took place in 1755. Plymouth, on Cape Cod Bay, is venerated as the landing place of the "Pilgrims" from the "Mayflower" in 1620. RHODE ISLAND is the smallest and most densely populated State in the Union. It has two capitals, Providence (182) and Newport (19). CONNECTICUT, the most southerly of the New England States, is noted for its extensive coasting trade and its variety of manufactures. Hartford (53), the capital, is a manufacturing town, and also a great centre of banking and insurance.

**THE MIDDLE ATLANTIC STATES** are seven in number, namely—New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and West Virginia, together with the Federal District of Columbia, extend from the Atlantic Coast to the Ohio River, and to Lakes Erie and Ontario and the Upper St. Lawrence.

NEW YORK, the "Empire State," is the foremost State in the Union in population, wealth, commerce, and manufactures, and is also one of the foremost agricultural States. One-third of its population is massed in New York (1,615) and Brooklyn (806), and several hundred thousands more are distributed in the manufacturing cities and industrial villages throughout the State. Buffalo (255), on Lake Erie, is a great grain port on the Great Lakes. NEW JERSEY includes a narrow and level district between the Delaware River and the sea. Newark (182) is the largest city in the State. Jersey City (163) is a suburb of New York. PENNSYLVANIA is the second manufacturing and the chief mining State in the Union. It produces one-half of the iron, nearly all the petroleum, and three-fourths of the coal mined in the States.

1. The areas and population of the New England States are, according to the eleventh Census (1890), as follows:—

	Area in sq. miles.	Population 1890.
Maine .. ..	35,540	651,068
New Hampshire ..	9,308	378,830
Vermont .. ..	8,968	332,432
Massachusetts ..	8,215	2,328,943
Rhode Island ..	1,280	345,806
Connecticut .. ..	4,960	745,268

2. The areas and population of the Middle States are as follows:—

	Area in sq. miles.	Population 1890.
New York .. ..	49,170	5,997,863
New Jersey .. ..	7,815	1,444,353
Pennsylvania .. ..	45,215	5,283,014
Delaware .. ..	2,050	168,463
Maryland .. ..	12,310	1,048,390
District of Columbia	70	320,322
Virginia .. ..	42,450	1,658,930
West Virginia .. ..	24,545	762,794



**Pittsburg** (240), at the junction of the Ohio and the Alleghany, is the centre of an enormous trade in coal, iron, and petroleum, and has the largest iron, steel, and glass works in America. **Alleghany** (105), on the other side of the river, is the third city in the State. **Harrisburg** (49), on the Susquehanna, is the capital, and there are numerous other large towns, but none approach in population or commercial importance the great city of **Philadelphia** (1,045), the first city of the United States in manufactures, the second in population, and the fifth in foreign commerce. **DELAWARE** is, next to Rhode Island, the smallest State in the Union. **Dover** is the capital, but **Wilmington** (61), is the chief city. **MARYLAND** has a mild climate and a soil well adapted to the growth of *fruits, grain, and tobacco*. **Baltimore** (434), a great manufacturing and commercial centre, on an estuary opening into Chesapeake Bay, is the only large city. **Annapolis** is the State capital. **WASHINGTON** (230), the Federal Capital, is in the District of Columbia, on the left bank of the Potomac River. The city contains the huge Capitol, in which the Congress meets, and the "White House," the official residence of the President. **VIRGINIA** is an agricultural State.<sup>1</sup> The finest *tobacco* is grown in the valleys of the James and Roanoke Rivers, and there are large tobacco factories at **Richmond** (81), the capital of the State. **WEST VIRGINIA** lies between the Alleghany Mountains and the Ohio River. **Wheeling**, a smaller Pittsburg, on the Ohio, is the only large town. **Charleston**, on the Great Kanawha River, is the capital.

**THE SOUTHERN STATES** include the broadest part of the Atlantic Plain, together with the Gulf Plain, and the Lower Mississippi Valley. The soil, especially along the Mississippi River, is remarkably fertile, and agriculture is the leading industry. **Cotton** is by far the most valuable crop—three-fourths of the cotton in the world are produced in these States.

The Southern States include one division of the Atlantic States, namely, the South Atlantic States, and also the Gulf States, and two Inland States.

The South Atlantic States<sup>2</sup> are *North Carolina, South Carolina, Georgia, and Florida*. **NORTH CAROLINA** has large pitch-pine forests along the coast, which yield *tar, pitch, resin, and lumber*. **Raleigh** (13) is the capital, but **Wilmington** (20) is the largest city. **SOUTH CAROLINA** produces more rice than any other State, and the famous "sea island" cotton is produced on the islands and swamps which border the coast. **Columbia** (15) is the capital, but **Charleston** (55), an important cotton port, is the largest city. **GEORGIA** is both agricultural and manufacturing. **Atlanta** is the capital, but **Savannah** (43), the second cotton port in the Union, is the largest city. **FLORIDA** is low and swampy, its surface being nowhere more than 200 feet above the sea. It is noted for its mild and equable climate, and its productive *orange groves*. **Key West** (18) is a naval station off the south coast. **Tallahassee** is the capital. **St. Augustine**, on the Atlantic Coast, is the oldest town in the United States.

The Gulf States<sup>2</sup> are *Alabama, Mississippi, Louisiana, and Texas*. Florida is partly a Gulf and partly an Atlantic State.

1. Virginia was the leading Slave State, and Richmond was, during the Civil War, the capital of the Southern Confederacy.

2. The area and population of the South Atlantic States are as follows:—

	Area in sq. m.	Pop. 1890.
North Carolina ..	52,280	1,617,947
South Carolina ..	30,670	1,181,149
Georgia ..	59,475	1,837,858
Florida ..	58,680	891,422

3. The areas and population of the Gulf States are as follows:—

	Area in sq. m.	Pop. 1890.
Alabama ..	52,280	1,618,010
Mississippi ..	46,810	1,288,600
Louisiana ..	48,720	1,118,567
Texas ..	268,780	2,238,528

**ALABAMA** is chiefly an agricultural State, and immense quantities of *cotton*, *sugar*, and *rice* are produced. The commercial centre of the State is the great cotton port of **Mobile** (81). **Montgomery** is the capital. **MISSISSIPPI** has a semi-tropical climate and the rich soil is highly favourable to the growth of *cotton*—the staple product—*maize*, *oranges*, *bananas*, and other fruits. **Jackson** is the capital. **LOUISIANA** is *par excellence* the sugar State—more *sugar* is produced on its fertile plantations than in any other State, but *cotton* and *corn*, *rice*, and semi-tropical *fruits* are also largely grown. Louisiana has also considerable manufactures, and an immense trade in *salt*. **Baton Rouge** (10), and **Shreveport** (12), are mere villages compared with **New Orleans** (242), which stands on either side of the Mississippi, about 95 miles above its mouth. New Orleans is the greatest cotton-exporting port in the world, and is also the chief outlet for the sugar, tobacco, wheat, and other products of the Mississippi Valley. **TEXAS** is the largest State in the Union. Great numbers of *cattle* and *sheep* are reared; while *cotton*, *corn*, and *wheat* are largely grown in the east. The finest “*sea-island*” cotton grows along the coast. **Austin** is the capital, but the largest city is **Galveston** (29), a great cotton port on an island off the coast.

**THE INDIAN TERRITORY** is a large tract of land enclosed by the States of Texas, Arkansas, Missouri, and Kansas, and the “**Public Land**” district on the north-west of Texas. This territory, which has an area, including **OKLAHOMA** (a recently organized territory, opened to white settlement a few years ago), of over 64,000 square miles, was set apart by the United States Government for Indian tribes removed from their original homes east of the Mississippi.

**THE INLAND STATES**<sup>1</sup> of the southern division are *Arkansas* to the west, and *Tennessee* to the east, of the Mississippi. **ARKANSAS** is traversed by the mighty Arkansas River, which is navigable for large steamers to **Little Rock** (26), the capital. **TENNESSEE** stretches eastwards from the Mississippi to the borders of North Carolina. **Nashville** (76), on the Cumberland River in Middle Tennessee, is both the capital and the largest city—“a rare fact in the United States.” **Memphis** (64) is an important river-port on the Mississippi.

**THE CENTRAL STATES**, eight in number, lie in the Mississippi Valley, with the exception of a small portion in the north-east, which is within the basin of the Great Lakes. The Mississippi River divides this group into two divisions of four States each—the East Central Division including **Kentucky**, **Ohio**, **Indiana**, and **Illinois**, and the West Central Division, the States of **Missouri**, **Iowa**, **Nebraska**, and **Kansas**. Three of the East Central States touch on the Great Lakes, namely, Ohio on Lake Erie, and Indiana and Illinois on Lake Michigan.

The East Central States<sup>2</sup> are **Kentucky**, **Ohio**, **Indiana**, and **Illinois**. They extend from the Mississippi on the west to the Cumberland Mountains and the Upper Ohio River on the east.

**KENTUCKY** produces more tobacco and hemp than any other part of the Union. **Louisville** (161), on the Ohio, is the largest tobacco mart in the world. **Frankfort**, on the Kentucky River, is the capital. **OHIO** is the most densely-

1. The area and population of these two inland States are as follows:—Arkansas, 53,045 sq. miles, population 1,123,179; Tennessee, 42,060 sq. miles, population 1,767,518.

2. The areas and population of the East-Central States are as follows:—

	Area in sq. m.	Pop. 1880.
Kentucky .. ..	49,400	1,533,635
Ohio .. ..	41,080	3,672,316
Indiana .. ..	36,380	2,192,404
Illinois .. ..	56,660	3,236,261

peopled of all the Central States, and is the third State in the Union in population, and among the first in manufacturing and mining. **Columbus** (88) is the capital, but the commercial and industrial centre of the State is **Cincinnati** (267), a great manufacturing and pork-packing place on the Ohio River. **Toledo** (81) and **Cleveland** (261) are the two chief lake-ports of Ohio. **INDIANA** has wide and fertile river valleys, well-grassed prairies, and extensive forests. **Indianapolis** (105), the capital, is a great centre of railways and of trade. **ILLINOIS** is most advantageously situated for trade, and has numerous agricultural resources, and ranks fourth among the States in the value of its manufactures. Within this State, on the shore of Lake Michigan, is **Chicago** (1,100), the largest primary grain, live-stock, and lumber-market in the country, and surpassed only by New York in the extent and value of its commerce. **Springfield** (25) is the capital.

The West Central States<sup>1</sup> form another group of four States to the west of the Mississippi, corresponding to the four States already described to the east of that river. These West Central States are **Missouri, Iowa, Nebraska, and Kansas.**

**MISSOURI** is an agricultural as well as a mining State, and already has large manufactures. **Jefferson City**, on the Missouri, is the capital, but far more important are **Kansas City** (183), the "Chicago" of the West, and the great city of **St. Louis** (452), the "Queen of the Mississippi Valley" and the seat of an enormous trade by rail and river, with vast manufacturing industries. **IOWA** includes the fertile undulating prairies between the Mississippi and the Missouri. The capital, **Des Moines** (50), is in the centre of the State. On the Missouri, the principal places are **Council Bluffs** (21) and **Sioux City** (38). **NEBRASKA** has fertile wheat lands in the east and rich prairie pastures in the west. **Omaha** (140) is an important river-port and trade centre. **Lincoln** (55) is the capital. **KANSAS**, the "Garden of the West," is an immense rectangle of prairie (larger than Great Britain) with cultivable soil in the east, and pasture lands in the west. **Topeka** (31), on the Kansas River, a tributary of the Missouri, is the capital.

**THE NORTHERN STATES,**<sup>2</sup> or more accurately, the North-Central States, form a group of five States, two of them—**Michigan and Wisconsin**—to the west, and the other three—**Minnesota, North Dakota, and South Dakota**—to the east, of the Upper Mississippi.

**MICHIGAN**, the "Lake State," consists of two peninsulas. The Lower Peninsula has fertile prairie lands and dense forests; the Upper Peninsula contains the richest copper mines in the world, as well as great forests of white pine and other valuable trees. **Lansing** (13), in the Lower Peninsula, is the capital. **Detroit** (206), on the Detroit River, which connects Lake St. Clair and Lake Erie, is one of the seven Great Lake ports. **WISCONSIN** has dense forests in the north and east, but both soil and climate of the open country are favourable to grain and stock, hence lumbering, wheat-growing, and cattle-rearing are the chief industries. The commercial centre of the State is the great lake port of **Milwaukee** (205), one of the greatest wheat and lumber ports in the world. **Madison** is the capital. **MINNESOTA** surpasses every other State in the Union in the production of wheat and flour, and the extra-

1. The areas and population of the West Central States are as follows:—

	Area in sq. m.	Pop. 1890.
Missouri .. ..	69,415	2,679,184
Iowa .. ..	56,026	1,911,896
Nebraska .. ..	77,610	1,038,910
Kansas .. ..	82,989	1,627,696

2. The areas and population of the Northern States are as follows:—

	Area in sq. m.	Pop. 1890.
Michigan .. ..	58,915	2,093,889
Wisconsin .. ..	56,040	1,636,880
Minnesota .. ..	83,365	1,301,825
North Dakota ..	70,795	162,719
South Dakota ..	77,650	328,803

ordinary development of this industry has caused **St. Paul** (133), on the Mississippi, at the head of navigation for large steamers, and **Minneapolis** (165), 8 miles higher up the same river, to expand from mere villages into large cities with an immense trade and important manufactures. **St. Paul** is the capital of the State. **NORTH DAKOTA** and **SOUTH DAKOTA** are two States formed, in 1889, out of the immense Territory of Dakota, an agricultural and pastoral region, through which flows the Missouri River. **Yankton**, **Sioux Falls**, and **Deadwood**, in South Dakota, and **Bismarck** and **Fargo**, in North Dakota, are the principal places.

**THE WESTERN STATES AND TERRITORIES.**<sup>1</sup>—The western grand division of the United States embraces the whole of the Pacific Highlands and a part of the Great Plains to the east of the Rocky Mountains.<sup>2</sup>

These Western States and Territories may be arranged in three divisions:—(1) the Rocky Mountain Division, (2) the Great Plateau Division, and (3) the Pacific Division.

1. The Rocky Mountain Division includes the three States and one Territory traversed by the ranges of that gigantic system. These are the States of **Montana**, **Wyoming**, and **Colorado**, and the Territory of **New Mexico**.

In **MONTANA**, the few towns are nearly all in the mining region in the south-west. Here are **Butte City**, the centre of the gold-mining district, **Helena** (14), the capital of the State, **Virginia City**, **Argenta**, and other mining places. **WYOMING** is, next to Colorado, the most elevated part of the Union. **Cheyenne** (12), the capital, and **Laramie City**, the two largest of the few towns, are in the south-east. **COLORADO** is the loftiest State in the Union, and is famous for its rich silver mines. **Denver** (107), on the South Platte River, is the capital. **Leadville** (11) and **Silver Cliff** are silver-mining centres. The Territory of **NEW MEXICO** was settled by the Spaniards nearly 300 years ago, and many of the inhabitants are of Spanish descent. **Santa Fé**, the capital, is, with the single exception of **St. Augustine** on the coast of Florida, the oldest European settlement in the United States.

2. The Great Plateau Division includes two States—**Idaho** and **Nevada**—and two Territories—**Utah** and **Arizona**. These occupy the central and larger portion of the Great Plateau or basin between the Rocky Mountains on the east and the Cascades and the Sierra Nevada on the west.

In **IDAHO**, mining for gold and silver and stock-rearing are the principal industries. **Boisé City**, the capital, **Idaho City**, and **Silver City** are the chief mining centres. **NEVADA** is a rich mining State, producing four-fifths of the silver mined in the United States, more than half the lead, and much of the gold. **Virginia City**, on the famous Comstock lode, **Carson City**, the capital, **Eureka**, and **Gold Hill**, are the chief mining towns. **UTAH** Territory is remarkable as being the headquarters of the Mormons or Latter-Day Saints. **Salt Lake City** (45) is in the Jordan Valley to the south-east of the Great Salt

1. The areas and population of the Western States and Territories are as follows:—

	Area in sq. m.	Pop. 1890.	Area in sq. m.	Pop. 1890.
Montana .. ..	146,050	132,159	Oregon .. ..	96,030
Wyoming .. ..	87,880	60,705	Washington .. ..	86,890
Colorado .. ..	106,925	412,198		242,390
New Mexico (T.) ..	125,530	123,533		
Idaho .. ..	84,800	84,335		
Nevada .. ..	110,700	45,761		
Utah (T.) .. ..	84,970	297,905		
Arizona (T.) .. ..	83,580	69,620		
California .. ..	126,330	1,206,130		

2. The *Yellowstone National Park*, a rectangular area of some 3,600 square miles in the north-west, has been set apart as "a perpetual reservation for the benefit and instruction of mankind." The deep cañons, lofty walls, geysers, and lakes of this district, combine to make it the most wonderful portion of the continent, and, in some respects, of the world.

Lake, on the eastern side of which is Ogden (15), an important railway centre, where the *Union Pacific Railway* from the east connects with the *Central Pacific Railway* from the west. ARIZONA is very rich in minerals, and silver-mining is the leading industry. Tucson is the largest town, but Phoenix is the capital.

3. The Pacific Division of the Western States is, in every respect, much more advantageously situated than either of the other divisions; indeed, the three States into which the Pacific Coast region of the United States is divided—California, Oregon, and Washington—compare favourably with the Atlantic or the Gulf States as regards both resources and climate.

CALIFORNIA, the "Golden State," richly deserves the title, for its gold and quicksilver mines are the richest in the world, while wheat and other cereals of the finest quality are produced in the "Great Valley" of the Sacramento River and its tributary, the San Joaquin. Oranges, grapes, and other fruits are also grown in abundance. Sacramento (26), on the Sacramento River in the Great Valley, is the capital of the State, but San Francisco (300), the commercial metropolis of the Pacific Coast, is the largest city. Oakland (49), on the opposite side of the Bay of San Francisco, is the terminus of the *Central Pacific Railway*. OREGON has immense agricultural and mineral resources. Portland (48) is the chief port, but Salem is the capital of the State. WASHINGTON, the extreme north-western State of the Union, has numerous saw-mills along Puget Sound, salmon canneries on the Columbia River, and coal mines at Seattle, &c. Lumber, fish, wheat, and coal are at present the principal exports. Olympia is the capital. Seattle (43) and Tacoma (36) are rising ports on Puget Sound.

#### QUESTIONS ON THE UNITED STATES.

1. Point out on the map the extent of the United States, and name the boundaries.
2. Describe the great natural features of the United States.
3. Where are the Great Basin and the Colorado Plateau?
4. Name the principal rivers within the United States.
5. Which of the great lakes is wholly within the United States?
6. Say what you know concerning the climate of the United States.
7. In what part of the United States are coal and iron found?
8. From what nation are the great majority of the population of the United States descended?
9. What language generally prevails throughout the Union?
10. What races, besides the European, are included among the population of the United States?
11. Name some of the chief productions of the United States.
12. In which part of the Union is cotton principally grown?
13. In which part is manufacturing industry most prevalent?
14. What are the principal exports and imports? With what countries is the trade chiefly carried on? Name the principal ports.
15. Under what kind of government are the United States?
16. How many States and Territories are included in the Union?
17. How are the States that lie along the Atlantic Coast divided?
18. Name the six New England States.
19. Name the largest among the cities of the New England States.
20. In which States are the following towns, respectively:—Portland, Portsmouth, Providence, and Newhaven?
21. For what is the town of Plymouth noteworthy? In what State is it situated?
22. Name the seven Middle Atlantic States.
23. What great city constitutes the commercial metropolis of the United States? At the mouth of what river is it?
24. Point on the map to the following places:—Philadelphia, Baltimore, Buffalo, Pittsburg, New York, and Washington.
25. For what circumstance is Washington noteworthy? On what river does it stand?
26. Name the Southern States, and point to the place which they occupy (as a whole) on the map. How many of the Southern States border on the Gulf of Mexico?
27. Which are the largest among the cities of the Southern States?
28. Name the eight Central States. Which of them are to the west, and which to the east of the Mississippi?
29. Where are Cincinnati, Louisville, Cleveland, Indianapolis, and Chicago?
30. Name the chief towns in the West Central States.
31. Point out on the map the five Northern or North Central States.
32. In which of them are the following towns:—Detroit, Milwaukee, St. Paul, Minneapolis, Yankton, and Bismarck?
33. What States and Territories are included in the Western Division of the United States?
34. Which of them border on the Pacific?
35. Name the States and Territories which occupy most of the Great Plains. What States and which of the Territories are traversed by the Rocky Mountains?
36. What city is the chief commercial centre on the Pacific Coast of North America? In what State is it?
37. Where are the following towns:—Helena, Denver, Santa Fé, Boise City, and Carson City?
38. What do you know of Utah? Name its chief towns.
39. For what is California famous?
40. Where are Oakland, Sacramento, Salem, Olympia, Seattle, and Tacoma?

## MEXICO.

MEXICO includes the northern and larger portion of the isthmus which unites North and South America.

**BOUNDARIES.**—Mexico is bounded on the *north* by the United States, on the *west* and *south* by the Pacific, and on the *east* by the waters of the Gulf of Mexico. To the south-eastward, it joins the narrow regions known as Central America.

**EXTENT.**—The Mexican portion of the isthmus varies in width from 500 miles in the north to 125 miles in the south. Its area is estimated at 740,000 square miles, or more than 12 times that of England and Wales.

**COASTS.**—In general low and unbroken. The principal inlets are the *Gulf of Campeachy* on the east, and the *Gulf of California* and that of *Tehuantepec* on the west.

**SURFACE.**—Mexico consists of a high plateau, bordered by a narrow strip of low land upon either side. This low plain is generally of greater breadth upon the side of the Gulf of Mexico than upon that of the Pacific Ocean. From the low coast-plain, the country rises towards the interior by a succession of terraces, one above another, until at length the summit of the tableland is reached. The higher parts of this vary from 6,000 to 9,000 feet above the sea; the plain on which the city of Mexico stands is upwards of 7,500 feet.

The surface of the Mexican Plateau is diversified both by continuous chains of high ground and by isolated mountain peaks, many of which are volcanoes. Among the latter *Citlaltepētli* or Star Mountain, also called *Orizaba*, reaches 17,372 feet, but this giant peak is, according to a Mexican Geography, several hundred feet lower than the colossal volcano of *Popocatepētli*, which is visible from the capital, about 60 miles distant.<sup>1</sup> *Jorullo*, another volcano of this chain, is remarkable for having been thrown up in a single night (in 1759), to a height of 1,600 feet above the level of the plateau.

**Rivers.**—Mexico has no rivers of any considerable magnitude. Some of the streams which water portions of the interior plateau terminate in salt lakes, without reaching the sea.

The *Rio Grande* forms the boundary between Mexico and the State of Texas. Of the rivers within Mexico, the largest is the *Santiago*, which drains the central part of the country into the Pacific.

**Lakes.**—The principal lakes are *Chapala*, through which the *Santiago* flows; *Cayman*, in the north; and the small lake of *Texcuco*, near Mexico.

**CLIMATE.**—The climate of Mexico varies from north to south, being on the whole mild in the north, warm in the centre, and tropical in the south.

But the temperature also varies from the coast to the great tablelands in the interior. The low plains which stretch along the coast are intensely hot and generally unhealthy. The interior plateaux enjoy a moderate temperature, and

1. Professor Hellprin gives the heights of these | Popocatepētli, 17,515 feet. — *Alpine Journal* for mountains as follows:—Orizaba, 13,207 feet, and | February, 1891.

the various elevations which are passed through in the ascent to them exhibit a progressive diminution of heat. Generally speaking, elevations above 2,000 feet are free from the unhealthy influences which belong to the damp and heated atmosphere of the coast.

**PRODUCTIONS.**—The natural productions are rich and varied, alike in the mineral and the vegetable kingdoms, but they are turned to little account.

1. *Gold* and *silver*, with numerous other metallic ores, are extensively distributed. A great many mines are still worked, but the mineral produce of Mexico in the present day is inconsiderable compared to its former amount.

2. A rich variety of fruits, medicinal herbs, and other vegetable productions are native to Mexico. One of the most characteristic is the *cochineal plant*, a species of cactus upon which the cochineal insect (valued for its red dye) thrives. *Vanilla*, *cacao*, and *jalapa* are native to Mexico. *Tobacco*, *coffee*, *indigo*, and *sugar* are grown; the first-named is indigenous to the soil.

**INHABITANTS.**—This vast region, which is about 6 times the size of the United Kingdom, has a population of less than 12 millions, of whom scarcely 2 millions are of pure or nearly pure white race, while no less than 6 millions are Indians.

The whites are almost exclusively of Spanish descent. About four millions are *Mestizoes*, that is, of mixed Indian and Spanish blood. The *Creoles*, as the pure descendants of whites are called, and most of the *Mestizoes* and civilized Indians, are Roman Catholics. Public education, which is by law free and compulsory, is very backward.

**INDUSTRIES.**—Silver-mining, cattle-rearing, and agriculture are the leading occupations of the Mexican people.

The *silver mines* of Mexico were formerly the richest in the world, and they still yield a large proportion of the world's production of silver. *Cattle-rearing* is the main industry on the great plains in the interior, especially in Northern Mexico. *Agriculture* is conducted in an extremely primitive fashion. Maize is the chief cereal crop, but wheat, barley, and rice are also grown. The acreage under cotton, sugar-cane, henequen (a textile plant), coffee, and tobacco is steadily increasing.

**Commerce.**—The foreign trade of Mexico is carried on chiefly with the United States, Great Britain, France, and Germany. Annual value, 23 millions sterling.

**Ports.**—The principal ports are Vera Cruz, Tampico, Matamoros, Progreso, and Campeachy, on the Mexican Gulf, and Guaymas, Mazatlan, San Blas, Manzanillo, Acapulco, and Tehuantepec, on the Pacific Coast.

**Internal Communication.**—The roads are bad and scarcely anywhere adapted for carriages. There are now over 6,000 miles of railway open for traffic.

**GOVERNMENT.**—Mexico forms a federal republic, under an elective President. The legislative power is vested in a Congress consisting of a House of Representatives and a Senate. Each of the States has its own constitution, government, and laws.

1. The Aztec Indians of Mexico, Puebla, and Vera Cruz are the descendants of the famous race which had formed a highly civilized empire on the plateau of Anahuac long before the Spaniards set foot in the country.

The history of Mexico, as, unfortunately, of almost all Spanish America, is a mere record of pronouncements and uprisings without end—one revolution after another and military despotism, alternating with periods of perfect anarchy, combining with the influences of an oppressive priesthood to destroy the prosperity of the country. During the last decade, however, the country has been peaceable and has prospered, and the construction of an efficient railway system, connected with that of the United States, has powerfully assisted in developing its great resources. The annual revenue now amounts to about 7 millions sterling, and the expenditure to 7½ millions. The public debt, external and internal, is about 16½ millions.

**DIVISIONS and TOWNS.**—Mexico is divided into twenty-seven States, two Territories, those of *Lower California* and *Tepic*, and the Federal District of *Mexico*.

The Mexican States are named, in most cases, after the towns which they include, but few of these are of any considerable size. The city of **MEXICO** (330), which greatly exceeds any other in population, is the capital. Mexico stands on the interior tableland, nearly midway between the two oceans, and at an elevation of more than 7,500 feet above their waters. It was already a seat of empire—the capital of the native Aztec monarchy—when Cortes reduced Mexico under the Spanish arms, in the early part of the 16th century. It is now connected by rail with New Orleans and with Vera Cruz on the Gulf of Mexico, and with the ports of Acapulco, Manzanillo, and San Blas on the Pacific Coast.

**Vera Cruz** (24) and **Acapulco**—the one on the Atlantic Coast, the other on that of the Pacific—are the chief seaports of Mexico. Vera Cruz occupies an unhealthy situation on the low shore of the Gulf of Mexico. **Tampico**, further north on the same line of coast, has some share in Mexican commerce, especially in exporting the produce of the mines. **Matamoros** is an important town on the borders of Texas; it stands on the Rio Grande about 40 miles above its mouth. **Acapulco**, on the Pacific, possesses one of the finest harbours in the world. **Mazatlan**, **Guaymas**, **San Blas**, **Manzanillo**, and **Tehuantepec**, which are also on the Pacific, are rising ports, and three of them—**Acapulco**, **Manzanillo**, and **San Blas**—are connected by rail with the capital.

The chief towns in the interior are **Puebla** (80), at the foot of Popocatepetl, to the south-east of Mexico, **Leon** (50), to the north-west of the capital, and **Guadalajara** (95), further west, in the valley of the River Santiago; all the three are manufacturing towns of some importance.<sup>1</sup>

The long and narrow peninsula of California, on the western side of the gulf to which its name is given, forms one of the Territories that are attached to Mexico. The name of *Lower California* is given to this region, in order to distinguish it from the State of California to the north, of which it is, physically, the continuation. It has an area of over 60,000 square miles, but the population, consisting chiefly of Spanish and Indian half-castes, does not exceed 40,000.

**YUCATAN**, also a peninsula, adjoining the opposite extremity of Mexico, forms one of the Mexican States. It has an area of 30,000 square miles and a population of 300,000, four-fifths of them Indians and Mestizoes. It contains the towns of **Merida** (32) and **Campeachy**, the former of which is the capital.

1. Very few among the other cities of Mexico possess any other than local importance. The whole country exhibits a vast decline from its flourishing condition during the 16th and 17th centuries, when the treasures of the New World were poured into Europe from its shores. But it contains abundant indications of former prosperity, shown in the magnificent architectural decorations of many of its cities, their fine cathedrals, convents, and other structures.

There are also in various parts of Mexico, monuments of earlier date which bear testimony to the partial civilisation attained by the Indians prior to the Spanish conquest. Many of these monuments bear considerable resemblance to the ruins that are so numerously strewn over the plains of Western Asia, and, like them, are gazed on with wonder, not unmixed with awe, by the present degenerate race of natives.



## CENTRAL AMERICA.

The name of **CENTRAL AMERICA** is given to the narrow tract of country which extends from Mexico to the Isthmus of Panama. This region is washed by the waters of the Caribbean Sea and the Pacific Ocean on either side, and no part of it is far removed from one or other of the great oceans.

Central America is bounded by Mexico on the *north*, the Caribbean Sea on the *east*, and the Pacific Ocean on the *west* and *south*.

The *area* of this territory is estimated at 176,000 square miles, or about 3 times that of England and Wales. Its *breadth* varies from 300 miles in the centre to 70 in the south.

**SURFACE.**—Central America, like Mexico, consists of high plateaux in the interior, with low plains adjoining the coast.

The plateaux are inferior in height to those of Mexico, but they are bordered on the western side by high mountains, many of which reach an altitude of 13,000 feet and upwards. Several of these mountains are active volcanoes. The low plain along the Atlantic Coast is of considerable extent, especially that part of it which is called the *Mosquito Coast*.

**RIVERS.**—The rivers of Central America are of little importance, excepting in so far as they afford the means of navigation into the interior, and of thereby effecting a nearer approach to communication between the two oceans.

The river *San Juan*, which enters the Caribbean Sea near Greytown (or San Juan de Nicaragua), has hence become of some note. It issues from the large *Lake of Nicaragua*, the western shores of which approach within eleven miles of the Pacific. Steamers navigate the river and lake, and this route has formed of late years one of the most frequented lines of communication between the countries that lie upon the opposite side of the American continent. The smaller (but still extensive) *Lake of Managua* or Leon lies to the north-west of Lake Nicaragua, and discharges a stream into it.

**Climate and Productions.**—The climate and natural productions of Central America bear a general resemblance to those of Mexico. The coasts are hot and unhealthy, while the elevated interior is comparatively temperate. The productions of the forest are of high value. There are mines of *gold*, *silver*, *copper*, and *zinc*, as well as other valuable mineral produce.

**INHABITANTS.**—The total population of Central America is estimated at about 3 millions, an average of 17 to the square mile.

Three-fourths of the population of the Central American States are either Indians or Mestizoes. The whites, who are everywhere the ruling race, are almost uniformly of Spanish descent. Many of the Indians speak the Spanish language.

**Industries.**—In all these countries, agriculture is in a backward condition, and the produce of small amount, compared with the capabilities which they possess. This is in a great measure the result of political insecurity, due to the frequent revolutions.

**Commerce.**—*Indigo*, *cochineal*, *coffee* (the last chiefly from Costa Rica), with *sugar*, *hides*, and *valuable cabinet and dye woods*, &c., are the chief exportable products. The exports to, and imports from, Great Britain—the latter consisting chiefly of cotton goods, metal wares, and machinery—each amount to about a million sterling.

**DIVISIONS.**—Five distinct States—the republics of **Guatemala, Salvador, Honduras, Nicaragua, and Costa Rica**—and one British Colony—**British Honduras or Belize**—are included within Central America.

1. **GUATEMALA**, the most northerly of the Central American Republics, has an area of about 46,800 square miles, and a population of about  $1\frac{1}{2}$  millions, more than half of whom are pure Indians, the rest being half-castes, with the exception of a few descendants of Europeans.

The elevated mountain chain which traverses the country from west to east, has several volcanic summits over 18,000 feet in height. Earthquakes are frequent, and, indeed, the whole of Central America is more or less liable to earthquakes, which are sometimes of great violence. The capital, **NEW GUATEMALA** (66), is more populous than any other city in Central America. Old **Guatemala**—the former capital of the State—was abandoned as the seat of government from its liability to earthquakes, as well as from the injury to which it is exposed from the eruptions of neighbouring volcanoes.

2. **SALVADOR** is the smallest of the States of Central America, its area being 7,228 square miles, only about one-sixth that of England and Wales. This little republic extends along the Pacific Coast for about 170 miles, and inland for about 40 miles to the frontiers of Honduras. It has a population of over 650,000, who are largely engaged in agriculture, manufactures, and, within recent years, mining. The capital, **SAN SALVADOR** (17), founded in 1528, has been repeatedly devastated by earthquakes. The principal port is **La Libertad**, on the coast, 15 miles south-west of the capital.

3. **HONDURAS** lies between **Guatemala** and **Nicaragua**, and extends along the Caribbean coast from the Gulf of Honduras to Cape Gracias à Dios. It has an area of about 46,000 square miles, and a population of less than half a million, mostly Indians and Ladinos, or half-castes. The capital of the republic is **TEGUCIGALPA** (12), 40 miles south-east of the former capital, **Comayagua**. The chief ports are **Truxillo** and **Omoa**, both on the Gulf of Honduras.

4. **NICARAGUA** is the largest State in Central America, having an area of 51,660 square miles. Its population, however, only amounts to 400,000, of whom but a small number are of European descent.

This State is naturally the richest in Central America, but long continued political troubles have hindered any great progress. The present capital is **MANAGUA** (18), which is situated on the slope of an active volcano, near the southern shores of Lake Managua. **Leon**, the old capital, is now partly in ruins, but has still about 25,000 inhabitants. **Granada**, on the north-western border of Lake Nicaragua, is one of the oldest cities in Central America. Near the mouth of the San Juan River, which forms the outlet of Lake Nicaragua, is **Greytown** or **San Juan de Nicaragua**.<sup>1</sup>

5. **COSTA RICA**, the most southern of the Central American States, extends across the isthmus, and has an area of 20,000 square miles and a population of a quarter of a million, most of them of Spanish descent, the half castes being few in number. **SAN JOSE** (14), the capital, is connected by rail with the port of **Limon**, on the Atlantic, and with **Punta Arenas**, on the Pacific.

6. **BRITISH HONDURAS.**—The Crown Colony of British Honduras or *Belize*, the only British possession in Central America, is bounded on the north by the Mexican State of Yucatan, on the

1. The Nicaragua Ship Canal, which seems likely to accomplish what the Panama Canal Company has failed to do, is to extend from Greytown on the Atlantic side to Brito on the Pacific, utilising the Lake of Nicaragua and the channels of several rivers for a part of the way.

west and south by Guatemala, and on the east by the Caribbean Sea. It has an area of 7,500 square miles and a population of about 30,000, the majority of whom are Negroes and Indians.

The climate and soil are adapted for the luxuriant growth of almost every tropical product. *Mahogany*, *logwood*, and *bananas* are the most important articles of export, principally to Great Britain and the United States. The capital and centre of trade is the neat and picturesque little town of Belize, at the mouth of the Belize River.

#### QUESTIONS ON MEXICO AND CENTRAL AMERICA.

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| <p>1. Name the boundaries of Mexico, and point them out upon the map.</p> <p>2. Give some account of the natural features of Mexico.</p> <p>3. What kind of climate has Mexico? In what way is this affected by the characteristic features of its physical formation?</p> <p>4. Say what you know concerning the natural productions of Mexico, naming some of its characteristic plants.</p> <p>5. To what races does the population of Mexico belong?</p> <p>6. What is the general condition of industry in Mexico at the present time? What articles are exported?</p> <p>7. Point on the map to the city of Mexico. By what is its site distinguished?</p> <p>8. Name the two chief seaports of Mexico, on the Atlantic and Pacific coasts, respectively, and point them out on the map.</p> <p>9. Where are the following—Tampico, Mazatlan, San Blas, Lower California, Yucatan, and Campeachy?</p> <p>10. What kind of government is Mexico under? What religion is uniformly followed?</p> | <p>11. Where is Central America? Point to its limits on the map.</p> <p>12. By what seas is Central America bounded on either hand? Name the great inlet on its eastern coast.</p> <p>13. What are the characteristic natural features of this region?</p> <p>14. What two lakes does Central America contain? What river issues from the larger of the two?</p> <p>15. Say what you know concerning the population of this region.</p> <p>16. What articles are exported from Central America?</p> <p>17. How many distinct States are comprehended within Central America? Name them.</p> <p>18. State what you know of Guatemala and Salvador.</p> <p>19. Give some particulars of Honduras, Nicaragua, and Costa Rica.</p> <p>20. Where is British Honduras? What is the name of its chief town?</p> <p>21. What articles of produce does British Honduras furnish?</p> |
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#### THE WEST INDIES.

The WEST INDIES<sup>1</sup> form an immense semicircular chain of islands, extending from Southern Florida to the mouths of the Orinoco, and lying between the Gulf of Mexico and the Caribbean Sea and the open Atlantic.

The numerous islands of this region are geographically divided into (1) the Bahamas, (2) the Greater Antilles, and (3) the Lesser Antilles. The Lesser Antilles are further subdivided into (a) the Leeward Islands, and (b) the Windward Islands.

The **Bahamas** are the most northerly portion of the West Indian Archipelago.

The **Greater Antilles** consist of *Cuba*, *Haiti*, *Jamaica*, and *Porto Rico*, and a number of smaller islands.

The **Lesser Antilles** comprehend the long chain of islands that stretch, in a curved line, from the eastern extremity of Porto Rico to the mainland of South America.

The total *area* of the West Indian Islands is estimated at 95,000 square miles, of which the Greater Antilles include not less than 83,000 square miles.

1. So called, because Columbus thought that, when he sighted the island of San Salvador, in the Bahamas, he had reached the western shores of India.

**NATURAL FEATURES.**—All the larger islands of the West Indies are more or less mountainous. So also, with few exceptions, are the islands belonging to the Windward and Leeward chains. The Bahama Islands, on the contrary, are almost wholly level.

In Cuba, the largest island of the West Indies, the mountains reach nearly 8,000 feet above the level of the sea, and the mountains in the island of Haiti exceed that altitude. The *Blue Mountains* of Jamaica are upwards of 7,000 feet. Fertile plains and watered valleys alternate with the high grounds. Many of the smaller islands exhibit peaks which rise to 3,000 feet, and some to even double that altitude.

**CLIMATE.**—The climate of the West Indies is thoroughly tropical. With the exception of a part of the Bahama chain, the entire archipelago is within the Torrid Zone, and exhibits the usual characteristics of that belt of the globe. But the average temperature is not so high as in the corresponding latitudes of the Eastern Hemisphere.

The dry and rainy seasons follow one another with unfailing regularity, and the quantity of rain is excessive—surpassing (in the case of some of the smaller islands) that which is experienced in any other part of the globe. It is only during the rains that the climate is unhealthy.

**PRODUCTIONS.**—The most valuable productions of this region are those which belong to the vegetable world.

*Manioc, arum* (or taro<sup>1</sup>), *sweet potato, arrowroot, maize, pine-apple, pimento, ginger, cocoa, vanilla, the tamarind, guava, cocoa-nut-palm, indigo, and tobacco*, are indigenous to the soil. The *sugar-cane, coffee, cocoa, plantain, and bread-fruit* all flourish.

The chief commercial productions of the West Indies are *sugar, rum, molasses, and coffee*; with *cocoa, tobacco, cotton, spices* (chiefly pimento and ginger), to a smaller amount.

Three of the above—*sugar, rum, and molasses* (or treacle)—are the produce of the *sugar-cane*, the culture of which was introduced into this region by the Spaniards at an early date after the discovery of the New World. The cultivation of the *sugar-cane* is even yet the leading industry in these islands, and *sugar, rum, and molasses* still form the chief exports.

**INHABITANTS.**—The total population of the West Indies probably amounts to about 4 millions, an average of over 40 persons to the square mile.

Nearly two-thirds of the population of the whole region are Negroes, the remaining third Whites and Mulattoes, the latter of mixed European and Negro blood. Europeans and people of European descent (Creoles) are most numerous in Cuba, where they amount to considerably more than one-half of the whole.

**DIVISIONS.**—With the exception of the island of Haiti, which is divided between the two independent republics of *Haiti* and *San Domingo*, all the West Indian islands are in the possession of five European powers, namely, *Great Britain, Spain, France, Holland, and Denmark*.

1. This is a tuberous root, as also is the betata or sweet potato. The taro furnishes a principal article of food to the inhabitants of the Sand-

which Islands, and many other of the Pacific groups.

2. Pimento is more familiarly known as all-spice.

1. **THE BRITISH WEST INDIES.**—The British portion of the West Indian Archipelago includes the large island of Jamaica, in the Greater Antilles, and Trinidad, Barbados, and other islands in the Lesser Antilles.

The **Administrative Divisions** of the British West India Islands are (1) Jamaica, (2) the Bahama Islands, (3) the Leeward Islands, (4) the Windward Islands, (5) Trinidad and Tobago, and (6) Barbados.<sup>1</sup>

The **Bermudas**, a group of islands in the North Atlantic, 600 miles west of Cape Hatteras, are also British.

1. **JAMAICA.**—The island of JAMAICA,<sup>2</sup> the *Xaimaca*, or "land of wood and water," of the old Caribs, is by far the largest and most important of the British West India Islands. It is about 150 miles in length, and 50 miles in greatest breadth, and has an area of 4,200 square miles, and a population of over 600,000, not more than 3 per cent. of whom are whites.

A glance at the map will show the physical character of the island. The grand central chain of the **Blue Mountains** rises in some peaks to 7,300 feet above the sea. Of the numerous rivers, only one, the **Black River**, is navigable, and that only for boats. There are excellent harbours; the island is intersected by good roads, and there are about 70 miles of railway. The trade of Jamaica is mostly with the United States (50 per cent.) and the United Kingdom (40 per cent.). The chief articles of export, in order of value, are—**dye-woods, fruits, coffee, sugar, and rum.** The centre of the external trade is **KINGSTON**, the capital, on the south coast, and its harbour—**Port Royal**—is the finest of the 30 good harbours of the island. **Montego Bay** and **Falmouth**, on the north side of the island, are also important ports. **Spanish Town**, the former capital, is about 11 miles west of Kingston.

2. **THE BAHAMAS** are the most northerly of the West Indian Islands. They lie to the north of Cuba and Haiti, and have an area of about 5,800 square miles, and a population of 50,000, nearly one-third of whom are whites. Of over 500 islands and islets, not more than 20 are inhabited, and of these the most important are **New Providence** (containing the capital, **NASSAU**), **San Salvador** or **Watling Island**,<sup>3</sup> **Abaco**, **Grand Bahama**, **Long Island**, **Eleuthera**, **Great Inagua**, and **Andros**, with the **Turk's and Caicos Islands**,<sup>4</sup> which are politically attached to Jamaica.

3. **THE LEEWARD ISLANDS**, extending from the Spanish island of Porto Rico to the French island of Martinique, belong to Great Britain, with the exception of St. Thomas, Santa Cruz, Guadeloupe, and a few other islands.

The British Colony of the Leeward Islands is a federation, formed in 1871, of the five presidencies of (1) **Antigua**, (2) **St. Christopher and Nevis**, (3) **Dominica**, (4) **Montserrat**, and (5) the **Virgin Islands**. **ANTIGUA**, the second largest of these charming islands, is the seat of the general government of the Leeward Islands, and its capital, **St. John's**, is the residence of the Governor-in-Chief. **Barbuda**, 30 miles north of Antigua, is a dependency of that island. **ST. CHRISTOPHER**, better known as **St. Kitts**, and **NEVIS**, with **ANGUILLA**, form one presidency. **DOMINICA** lies between the two French islands of Guadeloupe and Martinique, and once belonged to France, and has remained French in speech. **MONTSERRAT**, so widely and well-known for

1. The British West Indies have an area of about 13,750 square miles, and a population of over 14 millions, most of whom are Negroes or Mulattoes.

2. Jamaica was discovered by Columbus, and was first settled by the Spaniards in 1509. In 1655 it was taken by an English fleet sent out by Cromwell, and was formally ceded to Great Britain in 1670. The abolition of slavery in Jamaica took place in 1833. In 1864-5, the negroes

broke out into open rebellion, which was, however, sternly repressed by Governor Eyre.

3. Watling Island, or San Salvador, is famous as the first land in the New World seen by Columbus (A.D. 1492).

4. Turk's and Caicos Islands are under the government of Jamaica, although they geographically form a part of the Bahama Archipelago. The Cayman Islands, and the Morant Cays and the Pedro Cays, are also attached to Jamaica.

its healthful lime-fruit, is a small island, hilly, but fertile and healthy—the healthiest of the Lesser Antilles. The VIRGIN ISLANDS—Tortola (on which is ROADTOWN, the capital of the group), Anegada, and Virgin Gorda—have all suffered severely from hurricanes.

4. THE WINDWARD ISLANDS extend from Martinique to Trinidad, and include St. Lucia, St. Vincent, the Grenadines, Grenada, Tobago, and Barbados. Of these, Tobago is politically attached to Trinidad, and Barbados forms a separate colony; the rest are included in the British Colony of the Windward Islands, which has a total area of over 500 square miles and a population of about 100,000, not one-twentieth of whom are whites.

ST. LUCIA is the most northerly of the British Windward Islands. CASTRIES, the chief town, has the best harbour in the Antilles, and is now the second naval station in the British West Indies. ST. VINCENT lies between St. Lucia and Grenada, and almost due west of Barbados. The capital is KINGSTOWN, on the south-west coast. GRENADA is fortunately out of the line of hurricanes, so that its bay of St. George is the safest and snugget of the ports in the Windward Islands. The GRENADINES are a group of small islands between Grenada and St. Vincent, to the Governments of which they are attached.

5. TRINIDAD, the most southerly of the long chain of the Antilles, lies off the eastern coast of Venezuela—the Gulf of Paria separating it from the mainland—immediately north of the mouth of the Orinoco. The smaller island of Tobago, to the north, was annexed to the government of Trinidad in 1889.

Trinidad has an area of 1,754 square miles, and a population of about 200,000. It is an island of extraordinary resources, and its fertile soil is admirably adapted to the cultivation of almost every tropical product. SUGAR and COCOA, coffee and tobacco, are at present the chief objects of culture, and the wonderful Pitch Lake is a source of considerable wealth. Port of Spain is the capital; about 30 miles to the south is another seaport, San Fernando, with one of the finest harbours in the West Indies.

6. BARBADOS, the most easterly of the West Indian Islands, is nearly a hundred miles distant from St. Vincent, the nearest of the Windward Islands. Though only 21 miles long and 14 miles broad, with an area of not more than 166 square miles, Barbados has a population of nearly 200,000, or considerably more than a thousand to the square mile, and is, after Jamaica, the most important of the British West Indian Islands. Bridgetown is the capital of this productive little island, which has “the appearance of a well-kept garden.”

THE BERMUDAS are an isolated group of islands in the North Atlantic, about 600 miles from Cape Hatteras. Of the numerous islands in this group, only about 20 are inhabited—these have a population of 16,000, of whom 6,000 are white. The 300 islands and islets of Bermuda are all of coralline formation; the climate is so remarkably equable and salubrious that Hamilton is a favourite winter resort; the soil produces arrowroot of the finest quality as well as an abundant supply of fruits and vegetables; while the forests yield a valuable and durable cedar.

II.—THE SPANISH WEST INDIES include Cuba, the “Queen of the Antilles,” and Porto Rico, the “healthiest of all the Antilles,” and several small islands and islets.

1. CUBA<sup>1</sup> is the largest of the West Indian Islands, and has an area of 43,000 square miles, with a population of 1½ millions, of whom about 200,000 are Spaniards by birth, and 600,000 Cubans or Creoles, mostly of Spanish descent. The rest include half a million Negroes, 50,000 Chinese, and 10,000 foreign whites.

<sup>1</sup> Cuba was discovered by Columbus in 1492, and was first settled by the Spaniards in 1511. A formidable insurrection broke out in the island in 1893, and was not finally suppressed until the end of 1896.

The chief physical feature of Cuba is the chain of mountains which extends through the interior of the island. The extensive plains on either side of this range are, on the whole, well watered, and, where properly cultivated, exceedingly fertile, producing sugar, tobacco, coffee, cotton, indigo, maize, &c. *Sugar* is the chief product of Cuba, and the "vegas" or tobacco plantations annually produce about 300,000 bales of the finest *tobacco*. About 180,000 bales of the "weed" are exported from Havana, besides over 200 millions of cigars. The Cuban capital, **Havana** (250), situated on the north side of the island, is the largest city in the West Indies. It has a very large number of cigar factories, and is the centre of an extensive trade.<sup>1</sup> **Matanzas**, an important port east of Havana, is the second city on the island. There are several other flourishing towns in the interior of the island and many busy ports.

2. **PORTO RICO**<sup>2</sup> has an area of 3,550 square miles (about half the size of Yorkshire), and a population of 784,000, more than half of them whites. The chief products, like those of Cuba, are *sugar, coffee, and tobacco*. **San Juan** (25) is the capital and chief port, but **Ponce** (40) and **San German** (30) are larger towns.

**III.—THE FRENCH WEST INDIES** include the islands of **Martinique, Guadeloupe**, and a portion of **St. Martin**, with several smaller islands. The French islands have a total area of over 1,000 square miles, and a population of 370,000, of whom only 25,000 are whites.

The island of **MARTINIQUE** lies between **St. Lucia** and **Dominica**. The largest town is **St. Pierre** (22), but **Fort de France** (11) is the capital. **GUADELOUPE** is north of **Dominica**. It consists of two portions, connected by a narrow isthmus. **Basse-Terre** (10), in the western peninsula, is the capital of the island. **Pointe-à-Pitre**, in the eastern portion, is the chief port and largest town. The smaller islands—**Marie Galante, Desirade, &c.**—which surround **Guadeloupe**, are also French.

**ST. BARTHOLOMEW**, a small island lying south-east of **St. Martin**, formerly belonged to Sweden, but was restored to France in 1877. The larger half of **ST. MARTIN** also belongs to France—the rest is a Dutch possession.

**IV.—THE DANISH WEST INDIES**, though including only three small islands—**St. Croix, St. Thomas, and St. John**—are of some commercial importance, **St. Thomas** being a port of call for steamers, and an entrepôt for the products of the surrounding islands.

**ST. CROIX**, or **Santa Cruz**, lies to the east of **Porto Rico**. The island of **ST. THOMAS** is one of the Virgin group—the town of **St. Thomas** is on a fine natural harbour, and is most favourably situated for commerce.

**V.—THE DUTCH WEST INDIES** embrace two groups—**St. Eustache, Saba**, and the southern part of **St. Martin**, in the Leeward Islands; and **Curaçao, Buen Ayre, and Oruba**, off the coast of **Venezuela**—all of them included in the "**Colony of Curaçao**."

**Willemstadt**, the chief town of **Curaçao**, the largest island (famous for its *liqueur*), is the seat of government. **Oruba** is to the west, and **Buen Ayre** to the east, of **Curaçao**. The northern islands are smaller and less populous.

1. Columbus was buried in the cathedral at Havana. 1493, and has since remained a Spanish possession. It was devastated by a hurricane in 1876.

2. Porto Rico was discovered by Columbus in 1493.

**VI.—INDEPENDENT STATES:** The large island of **HAITI** or **SAN DOMINGO**, inferior only to Cuba in magnitude, is divided between the two Negro Republics of **Haiti** and **San Domingo**. The former embraces the western, the latter the eastern, division of this important island, which measures 400 miles in length and 160 miles in greatest breadth, and has an area of 30,000 square miles, with a population of perhaps  $1\frac{1}{2}$  millions, nearly all Negroes or Mulattoes.

This island is naturally one of the finest in the world, and was long one of the most productive. But, since the closing years of the last century, prior to which time it had been divided between France and Spain, it has been the frequent theatre of anarchy and bloodshed, and its commercial produce has dwindled to a comparatively insignificant amount.

**HAITI.**—The Republic of Haiti includes the western and French-speaking portion of the island, and was formerly a French colony. The area of the republic is about 10,000 square miles, and the population about three-quarters of a million, nine-tenths of whom are Negroes. The entire trade is less than 2½ millions a year—**coffee, logwood, cocoa, cotton, hides, sugar, honey, and gums** are the chief exports from **Port-au-Prince** (34), the capital and principal seaport.

**SAN DOMINGO.**—The Republic of San Domingo embraces the central and eastern part of the island. It has an area of 20,000 square miles and a population of 600,000. The **tobacco, coffee, mahogany, cacao, hides and skins, logwood, sugar,** and other products of the republic, are exported principally through **Puerta Plata**, an important port on the north coast, and **San Domingo** (16), the capital, on the south coast. *Samana Bay* is a magnificent natural harbour on the north-eastern coast of the island.

#### QUESTIONS ON THE WEST INDIES.

1. By what seas are the islands of the West Indies surrounded?
2. Name the three portions into which the West Indies are divided. Which is the largest island of the entire archipelago?
3. What are the natural features of the larger islands of this region?
4. What do you know concerning the climate?
5. Mention some of the vegetable productions that are indigenous to this region.
6. What race of people forms the great majority of the population of the West Indies?
7. What are the chief commercial productions of the West Indies?
8. What islands are included in the British West Indies?
9. Which of the West Indian islands belong to Spain?
10. Which islands belong to France, Holland, and Denmark respectively?
11. Name the respective capitals of Jamaica, Trinidad, and Barbados, and give a brief description of each of these islands.
12. Which of the British West Indian islands are known as the Windward Islands? Which as the Leeward Islands?
13. Point to the following: — Antigua, St Christopher, Montserrat, and the Virgin Islands.
14. Where are the Bahama Islands? What is the name of their chief town?
15. By what event, in the annals of geographical discovery, are the Bahama Islands distinguished?
16. Where are the Bermuda Islands, and to what nation do they belong? What is their chief article of produce?
17. What are the chief productions of Cuba and Porto Rico? Name the respective capitals of these islands.
18. Find out the places of the following islands on the map:—Guadeloupe, Martinique, St. Martin, Santa Cruz, and Curacao.
19. What island in the West Indies formerly belonged to Sweden?
20. Into what two States is the island of Haiti divided? Name the chief town of each.



## SOUTH AMERICA.

The continent of **SOUTH AMERICA** forms the southern half of the New World. It is joined to North America by the Isthmus of Panama, and stretches southward to Cape Horn, which lies nearly under the 56th parallel of South latitude. South America is crossed by the line of the equator, but by far the larger part of the continent is within the southern hemisphere.

**BOUNDARIES.**—South America is bounded on the *north* by the Caribbean Sea and the Atlantic Ocean, on the *east* by the Atlantic Ocean, and on the *west* by the Pacific. To the southward, it gradually diminishes in breadth, and terminates in a group of rocky islands, called Tierra del Fuego, of which the southernmost extremity is Cape Horn.

**EXTENT.**—Looked at as a whole, South America, like Africa, forms a vast peninsula. It includes an *area* of 7,000,000 square miles, and is therefore nearly twice the size of Europe.

The *greatest length*, from north to south, is about 4,550 miles.

The *greatest breadth*, from east to west, is about 3,200 miles.

**COASTS.**—The coasts of South America, like those of Africa, are remarkably regular and unbroken. The total length of coast-line is estimated at 15,000 miles, equal to an average of 1 mile of coast to every 467 square miles of surface.

1. **Inlets.**—The coast line of South America presents few gulfs of any considerable magnitude. The most important inlets are the Gulfs of **Darien**, **Venezuela**, and **Paria**, and the estuaries of the **Amazon** and **Para**, on the *north*; the **Rio de la Plata**, and the Gulfs of **San Matias** and **St. George** on the *east*; and the Gulfs of **Guayaquil** and **Panama** on the *west*.

2. **Capes.**—The principal capes are **Gallinas** and **Orange** on the *north*; **San Roque**, **Branco**, **Frio**, **San Antonio**, and **Corrientes** on the *east*; **Horn** and **Froward** on the *south*; and **Parina**, **San Lorenzo**, and **San Francisco**, on the *west*.

Cape Gallinas is the most *northerly* point of the continent, Cape Branco the most *easterly*, and Cape Parina the most *westerly*. Cape Froward is the most *southerly* point of the mainland, but Cape Horn (which is the southernmost point of an extensive group of islands) is a more celebrated and better known promontory.<sup>1</sup>

3. **Islands.**—South America has few islands. Among the chief of them are the **Falkland Islands** and **South Georgia**, off the *south-east* coast; the group called **Tierra del Fuego**, in the *south*; the islands of the **Patagonian Archipelago**, **Chiloé Island**, **Juan Fernandez**, and the **Galapagos Islands**, on the *west* side of the continent; with **Margarita**, **Curaçao**, and a few others in the Caribbean Sea, on the *northern* coast.

**Tierra del Fuego** is divided from the mainland of South America by the Strait of Magellan, and from **Staten Island** by the Strait of Le Maire.

The islands that lie off the western coast of Patagonia are included under the name of the **Patagonian Archipelago**. They belong, physically, to the chain of the Andes, and are only divided from the mainland by narrow channels which penetrate the mountain region.

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1. Cf. North Cape and Cape Nordkyn in Europe.

**MOUNTAINS.**—South America is traversed by the loftiest and the most continuous system of highlands in the New World, namely, the Andes. Like North America, this continent exhibits the characteristic fact that its most elevated portions lie along the western side, and it exhibits this in a more eminent degree than is the case in the northerly half of the New World. The Andes lie much nearer to the Pacific Coast than the Rocky Mountains, and leave only a narrow plain between their western base and the sea.

South America has three mountain systems—the Andean, the Parime, and the Brazilian. The Andean system is much higher and far more massive than either of the other two, and, with the exception of the Himalayas, surpasses every other mountain chain on the earth's surface in altitude and continuity.

1. The Andes run in the direction of north and south, through the entire length of South America, from the Isthmus of Panama to Cape Horn. They form in some parts two, and in others three, distinct chains, with high plateaux enclosed between. The highest summit is *Sorata*, on the western border of Bolivia. This mountain reaches 24,812 feet above the sea, and is higher than any other in the New World. Even this great altitude, however, is 4,000 feet lower than that of the culminating peaks of the Himalayas.

Many other mountains in the vast system of the Andes exceed 20,000 feet in height, and no less than 20 peaks are upwards of 19,000 feet in height. A great number of snow-covered summits occur in the ranges enclosing the elevated tableland of *Titicaca*. Numerous high summits are also found in the immediate neighbourhood of the Equator: these were at one time supposed to be the loftiest mountains on the globe. Towards their southward extremity, the Andes diminish greatly in height, and make much closer approach to the neighbouring ocean. In Patagonia, the mountain system rises abruptly out of the waters of the Pacific. Through their entire course the Andes rise above the line of perpetual snow.

A great number of active volcanoes occur in the Andes, especially on the borders of Chili and in the neighbourhood of the Equator. The highest of them are *Chimborazo* (20,545 feet), and *Cotopaxi* (19,613 feet), both of which are within two degrees south of the Equator. Earthquakes are of frequent occurrence in most parts of the Andean region.

2. The Parime System comprises several ranges traversing the plateau which rises between the low plains of the Orinoco on the north, and the Amazon on the south. The main chain extends from the *Casiquiare* (the best known of those remarkable streams which connect the Orinoco basin with that of the Amazon) eastwards to the coast, near the mouth of the Amazon, and is known as the *Sierra Parime* in the west, and the *Sierra Acaray* in the east. The average elevation of these ranges is probably 4,000 feet, or about 2,000 feet higher than the plateau which they traverse.

3. The Brazilian System consists of numerous chains, some of which lie near the coast, others at a considerable distance inland. The coast ranges are the loftiest portions of the system; the highest points, however, seldom exceed 5,000 feet.

**TABLELANDS.**—The South American tablelands are found chiefly within the regions traversed by the Andes, and are enclosed between the double chains which are formed through large portions of that mountain system.

The highest among them is the *Plateau of Titicaca*, within Bolivia and Peru, which contains the large lake of that name, at an elevation of nearly 13,000 feet above the sea. The Plateau of Quito, which is crossed by the line of the equator, is at an elevation of 9,000 feet. There are other portions of the mountain

system in which the enclosed plateaux—bordered on either hand by snowy summits—exhibit similar elevations. These plateaux resemble the interior tablelands of the Asiatic continent, but are inferior to them both in altitude and in lateral dimensions.

**PLAINS.**—The whole interior of South America is but of moderate elevation. A series of great plains stretches from the shores of the Caribbean Sea southward to the estuary of the La Plata and the mouth of the Rio Negro. These plains separate the Andes from the mountain systems of Guiana and Brazil. They are naturally divided into three great portions, namely :—

1. The *llanos*, or grassy plains of the Orinoco valley.
2. The *selvas*, or forest plains of the Amazon valley.
3. The *pampas*, or plains of the La Plata region.

(1.) The *llanos* or *savannahs* resemble in general features the prairies of North America. They are vast natural meadows, portions of which are annually overflowed by the rivers.

(2.) The *selvas* exhibit a dense growth of natural forest. The forest-covered tracts are succeeded to the southward by grassy plains, which stretch from the upper portion of the basin of the Amazon into that of the Paraguay and other tributaries of the Rio de la Plata.

(3.) The *pampas* are vast plains which, according to the changes of the season, are alternately covered with herbage or with gigantic thistles. They stretch from the estuary of the La Plata to the base of the Andes.

**RIVERS.**—Nearly the whole of the South American continent has its slopes directed towards the Atlantic, and all its larger rivers consequently discharge into that ocean. The Andes lie so near to the Pacific as to leave no room for the formation of any considerable streams upon their western side.

Three of the rivers of South America are greatly superior to the others in magnitude and geographical importance, namely, the *Orinoco*, the *Amazon*, and the *Rio de la Plata*. The Amazon alone drains an area equal to more than a third of the continent, and the three together water nearly three-fifths of its total extent.

Of the smaller rivers, the principal are the *Atrato* and *Magdalena*, to the west of the Orinoco; the *Essequibo*, *Demerara*, *Berbice*, *Corentyn*, *Surinam*, and *Maroni*, between the Orinoco and the Amazon; the *Maranhão*, *Paranahyba*, *San Francisco*, and *Parahyba*, between the Amazon and the La Plata; and the *Colorado*, *Negro*, *Chubut*, and *Santa Cruz*, south of the La Plata.

1. The river **Orinoco**, which has a length of 1,500 miles, waters the region of the *llanos* or grassy plains. It rises in the western defiles of the Parime Mountains, and is joined by numerous tributaries in its circuitous course to the sea. The most remarkable feature of the Orinoco is that, about 180 miles below its source, the river divides into several branches, the best known of which flows to the south-westward, under the name of the **Casiquiare**, and joins the Rio Negro, an affluent of the Amazon. The Orinoco is thus connected, by a natural channel, with the basin of the river Amazon. There is no other instance in the world of the permanent bifurcation of a river of such magnitude, though a few similar examples occur elsewhere among streams on a smaller scale.

2. The *Amazon* has its source in the Andes. The branch which rises in the small lake of Lauricocha is regarded as the main stream of the river, but there are other branches of equal or greater length. In all, the *Amazon*<sup>1</sup> has a length of 8,900 miles, so that it rivals the *Mississippi*. It receives a vast number of tributary streams, the principal of which is the river *Madeira*.

3. The *Rio de la Plata*<sup>2</sup> is an immense estuary, formed by the junction of the rivers *Parana* and *Uruguay*. The *Parana* waters a vast area in the eastern interior of the continent, and is joined, 600 miles above the sea, by the river *Paraguay*, which drains a large portion of the more central plains.

**LAKES.**—South America has few lakes. The largest is *Lake Titicaca*, lying on the highest plateau of the Andes. It has fresh water, and discharges a considerable river,—the *Desaguadero*—which flows to the south-eastward and terminates in an extensive marsh.

The other lakes lie adjacent to the coast. Among them are *Lake Maracaibo*, in the north; with *Lake Potos* and others on the eastern coast, a short distance to the northward of the *Rio de la Plata*.

**CLIMATE.**—South America has on the whole a warmer climate than North America, but its higher latitudes are colder than the corresponding latitudes in the Northern Hemisphere.

Although two-thirds of the continent are within the Torrid Zone, yet the tropical belt of South America is not so intensely hot as the Equatorial Zone of Africa, because (1) the extent of solid, unbroken land is not so great; (2) the configuration of South America permits the rain-bearing winds from the North and South Atlantic to pass over the greater part of its surface, which is not the case in Africa; (3) the quantity of rain which falls in the tropical parts of South America, with the exception of a comparatively small and extremely arid district on the western coast between the Andes and the Pacific, is generally very great, exceeding in amount the rainfall not only of tropical Africa but of any other region in the world; (4) owing to this, the forests in South America are much more extensive and the vegetation generally far more luxuriant than is the case in Africa, and thus the soil is less exposed to the direct action of the sun's rays; (5) the mountain-land and uplands in tropical South America are higher and of greater extent than those of Africa; (6) South America projects further south towards the cold Antarctic regions than South Africa; and (7) the western coast of the former continent is washed by the cold Antarctic Drift Current, while the temperature along the African coast is not thus lowered.

**PRODUCTIONS.**—The natural productions of South America are extremely rich and varied.

1. **Plants.**—The combined heat and moisture which distinguish such large portions of South America tend to foster luxuriance of vegetation, and the vast forests of Brazil and Guiana surpass in extent and density of growth those of any other region in the world.

*Maize*, *cassava* or manioc, *cocoa*, *tobacco*, and the *potato* are the characteristic food-plants of the South American continent. The various species of *cinchona*, or Peruvian bark, are native to the tropical regions of the western coast; their valuable medicinal properties were known to the Indians prior to the first visit of Europeans to the New World. The *caoutchouc* or indiarubber tree<sup>1</sup> is a native production of the Brazilian forests, which comprehend a vast num-

1. The *Amazon* and the *Mississippi* are the two longest rivers on the globe. Either of them surpasses, by several hundred miles, the length of the greatest rivers of the Eastern Hemisphere, and their waters drain vastly more extensive areas.

2. That is, River of Silver—so called by its dis-

coverers, under the erroneous impression that the countries which its waters were rich in that ore.

3. "Indiarubber," or caoutchouc, is a gum which exudes from the bark of the tree, in which incisions are made for the purpose at a particular period of the year.

ber of woods of the most valuable description—among them *mahogany*, *Brazil-wood*, *logwood*, and numerous others. The *mate shrub* of Paraguay, generally known as *yerba mate*, is characteristic of that country, and its leaves are used like those of the tea-plant in other parts of the world.

2. **Animals.**—South America is marvellously rich in *birds*, most of them brilliantly coloured, and these, with large *reptiles* and an endless variety of *insects*, are the chief characteristics of the abundant animal life on this continent. The *mammalia*, however, are neither so large nor so formidable as those of Africa or Asia.

The larger animals of the Old World are represented in South America by much smaller and less powerful species. The African lion is represented by the *puma*, and the Asiatic tiger by the *jaguar*. These animals, which are the most formidable of the carnivora of South America, also occur in Mexico and Central America. The camel of the Old World is represented by the *llama*, an animal peculiar to South America. The proper *llama*, and also the various species known as the *alpaca*, *vicuña*, and *guanaco*, all belong to the high region of the Andes, where they range from Chili to Colombia. The *llama* belongs to the order of ruminating quadrupeds, and, like the camel, is used as a beast of burden. The *tapir* is another of the animals peculiar to South America, and is distinguished by the peculiar form of its snout, which bends inwards; it belongs to the order of *pachydermata* (thick-skinned), like the elephant of the Old World. The *sloth*, *ant-eater*, and *armadillo* are natives of South America, and represent in its zoology the order of *edentata* (toothless animals). The *quadrumanæ* (monkeys, &c.) are exceedingly numerous in the forests of Brazil, but are of different species from the like animals in the eastern half of the globe. The *opossums*, which abound in the forests of South America, and one variety of which is common in the northern half of the New World, belong to the order of the marsupial (pouched) quadrupeds—nowhere else found but in the Australian division of the globe.

Among the birds of South America the most characteristic are the *condor* of the Andes, various kinds of *vulture*, an immense variety of *parrots* with the most gorgeous plumage, a peculiar kind of *ostrich*, the brilliantly-coloured *toucan*, and over 150 species of *humming-birds*—most exquisitely beautiful miniature birds, varying in size from that of a bee to that of a wren.

Both reptile and insect life are favoured by the combined heat and moisture—with its consequent luxuriance of vegetation—of tropical South America. The *boa-constrictor*, the largest of the serpent tribe, is found in the swampy plains, and the *alligator* abounds in most of the rivers within the warmer portions of the continent.

3. **Minerals.**—South America is extremely rich in *minerals*, and for a long period its mines of silver and gold were the richest in the world.

The whole region traversed by the Andes abounds in *gold* and *silver*, while the goldfields of Brazil and Venezuela are among the richest, though not as yet the most productive in the world. Valuable ores of *copper*, *tin*, *lead*, and *iron* are widely distributed, but copper only is mined to any extent. The principal copper mines are in Chili. Good *coal* is also mined in the south of Chili.

South America is also rich in precious stones; the *diamonds* of Brazil are "of the first water," and Colombia is noted for *emeralds* of surpassing beauty.

**INHABITANTS.**—The total population of South America does not exceed 30,000,000—a number that is extremely small compared with its vast area and its almost unlimited capabilities.

About a third of the whole belong to the white race, and are mostly of Spanish or Portuguese origin. With the exception of Brazil, which was colonized by Portugal, nearly all South America was formerly under Spanish rule.

The native Indians of the New World are more numerous, in the present day, in South America than in North America, and perhaps number not less than five millions. The Negroes (chiefly found in Brazil, where they form about one-seventh of the population) number about three or four millions. Mixed races, or "Mestizoes"—principally of European and Indian blood—make up the remaining number. Spanish is the prevailing language all over the continent, except in Brazil, where Portuguese is spoken. There are almost as many Indian languages and dialects as there are tribes.

**DIVISIONS.**—With the exception of the British, Dutch, and French colonies in Guiana, South America is divided into 10 Republics—4 in the east, 4 in the west, and 2 in the interior.

The Eastern Republics are *Venezuela, Brasil, Uruguay,* and the *Argentine Republic.* The Western Republics are *Chili, Peru, Ecuador,* and *Colombia.* The two Inland Republics are *Bolivia* and *Paraguay.*

### EXAMINATION QUESTIONS.

1. By what Isthmus is South America joined to North America? What seas wash the opposite shores of this isthmus?
2. How is South America bounded? In what does it terminate to the southward?
3. What gulfs occur on the coasts of South America?
4. Name some of the principal capes of South America. Which is the most northern point? Which is the most southern?
5. Point on the map to the following:—the Falkland Islands, Juan Fernandez, Tierra del Fuego, the Patagonian Archipelago, and the Galapagos Islands.
6. Name the principal mountain systems of South America.
7. Comparing the highest mountains in the New World with the highest in the Old World, which exhibit the greatest altitude? Name the highest point in either hemisphere.
8. What tablelands belong to South America?
9. What portions of South America form a vast lowland plain, and what are its three great divisions?
10. Where is the region of (1) the *llanos*, (2) the *selvas*, (3) the *pampas*, and what are the characteristic features of each?
11. Name as many as you can of the rivers of South America.
12. Which are the three largest rivers of South America?
13. In what way is the River Grinoco connected with the basin of the Amazon?
14. What two rivers unite in the estuary of the Rio de la Plata?
15. Name the largest lake in South America.
16. By what conditions is the climate of South America distinguished?
17. Name some of the more important among the food-plants that are native to South America.
18. What plants, celebrated for their medicinal properties, are native to South America?
19. Mention some other productions of the vegetable world that belong to this region.
20. Name some of the animals that are most characteristic of the South American continent.
21. What parts of South America furnish the precious metals? Where are diamonds, copper, and coal found?
22. What races of mankind are included among the population of South America? What proportion of the whole are whites?
23. Name the chief divisions of South America.
24. To whom does Guiana belong?

### BRAZIL.

**BRAZIL**<sup>1</sup> is the largest country of South America. It embraces a vast portion of the eastern shores of that continent, and stretches over nearly half its entire extent.

**BOUNDARIES.**—Brazil is bounded on the *north* by Venezuela and Guiana; on the *north-east* and *east* by the Atlantic Ocean; on the *south* and *south-west* by Uruguay, Argentina, and Paraguay; on the *west* by Bolivia, Peru, Ecuador, and Colombia.<sup>2</sup>

1. Brazil was first discovered by Cabral in 1500, and was named by him *Tierras de Santa Cruz*—the "Land of the Holy Cross." The name Brazil is derived from the red Brazil wood, which the

Portuguese compared to red-hot coals (Portuguese, *Brasil*).

2. Brazil thus borders on every country in South America with the exception of Chili.

**EXTENT.**—The *area* of Brazil is estimated at 3,219,000 square miles,<sup>1</sup> thus comprising nearly half of the South American continent, and not much less than Europe.

The *greatest length*, from Cape Orange on the north to San Pedro on the south, is 2,500 miles. The *greatest breadth*, from Cape San Roque on the east to the Peruvian borders on the west, is 2,600 miles.

**COASTS.**—Generally regular and unbroken. Total length, 3,700 miles. The principal capes are Orange, San Roque, and Frio. The chief inlets are the estuaries of the Amazon, the Pará, and the Maranhão, and the Bays of Bahia and Rio de Janeiro.

**NATURAL FEATURES.**—The great features of Brazil are the vast forest-covered plains or *selvas*, which are watered by the largest rivers in the world. Its western boundary nowhere reaches the Andes, and even the highest portions of its surface attain only a moderate elevation above the sea.

The mountains of Brazil rarely exceed 3,000 feet in height. The greater part of the region over which they stretch forms a moderately-elevated plateau, seldom exceeding 1,000 feet above the sea, and traversed by hills of gentle ascent. The range known as the *Serra do Mar*, which stretches along part of the coast, exhibits a steeper acclivity. The other chief ranges are the *Serra Espinhaço*,<sup>2</sup> and the *Serra dos Ventos*.

**Rivers.**—Brazil includes the vastly greater portion of the immense valley of the Amazon, and a small part of the valleys of the Parana and the Paraguay. The entire valley of the San Francisco is within its limits.

The Amazon is the chief river of Brazil. It is throughout navigable by vessels of considerable tonnage, and its stream, at between 400 and 500 miles above the sea, has a breadth of several miles, which increases to 50 miles and upwards immediately above its mouth. The Amazon has numerous tributaries, among which the *Negro*, on its left or northern bank, the *Madeira*, *Tupajós*, *Xingu*, and *Tocantins*, on the right or southern bank, are the most considerable. Every one of these is a large river. Brazil, indeed, abounds in inland waters, and possesses capabilities for inland navigation such as belong to few other regions.

**Climate.**—The climate of Brazil is thoroughly tropical. With the exception of the extreme southern provinces, the whole country is within the Torrid Zone.

**Productions.**—The *diamond* and other *precious stones*, with *gold*, *silver*, *iron*, *copper*, *lead*, are among its productions. But the mineral wealth of Brazil is greatly inferior in importance to the vegetable produce of its soil, and to the inexhaustible treasures of its *forests*.

**INHABITANTS.**—The population of Brazil is upwards of 14,000,000, more than a third of whom are whites, almost exclusively of Portuguese descent.

A large proportion of the population consists of Negroes who, until recently, were slaves but now possess the full privileges of citizens, and are in all respects on terms of equality with the whites. The remainder consists of Indian and mixed races. At the seaports, the population is chiefly European or of European descent. There are large German Colonies in the States of Rio Grande do Sul and Santa Catharina. The Portuguese language is generally spoken by the people of Brazil. The Roman Catholic religion is followed, but there is no connection between Church and State.

1. 56 times that of England and Wales.

2. Highest points: *Nambo*, 5,900 feet; and *Nacolum*, 5,700 feet.

**INDUSTRIES.**—Brazil is mainly an agricultural country, but only a small fraction of its soil has been brought under cultivation. It possesses the highest fertility, and yields the most abundant harvests.

Coffee, sugar, and cotton are the staple productions, and the first-named has become increasingly important within recent years. Rice, cocoa, maize, and tobacco, with the manioc and other articles of native growth, are also extensively produced. The manioc yields the cassava-bread, the chief article of food to the native Indian population.

**COMMERCE.**—Brazil carries on a large foreign trade, principally with the *United States* and *Great Britain*, and very largely also with *Germany* and *France*. Annual value, 44 millions sterling—imports 21 millions; exports, 23 millions.<sup>1</sup>

The most important port is that of RIO DE JANEIRO, and its principal export is coffee, which amounts in value to nine-tenths of the total exports thence.

Internal communication in Brazil is facilitated by an unrivalled system of river-navigation, supplemented by about 6,000 miles of railways, connecting the chief towns on the seaboard with the interior.

**GOVERNMENT.**—The United States of Brazil form a Federal Republic.<sup>2</sup>

The executive authority is exercised by the President, and the legislative power by a National Congress, which consists of the Chamber of Deputies and the Senate. Each State in the Union has its own Government, distinct and independent as regards local affairs. The annual Revenue amounts to about 17 millions a year, and the Expenditure to 19 millions. The Public Debt is about 140 millions sterling. The standing army, service in which is compulsory, consists of about 16,000 men, and the navy includes 60 armoured vessels, 9 of which are ironclads.

**DIVISIONS.**—The Republic of Brazil includes 20 States and 1 Federal District (the city of Rio and its environs).

The Maritime States of Brazil are Pará, Maranhão, Piauí, and Ceará, on the north-east coast; Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia, Espírito Santo, Rio de Janeiro, and the Federal District of Rio, on the east coast; with San Paulo, Paraná, Santa Catharina, and Rio Grande do Sul, on the south-east coast. The Inland States are Amazonas and Matto Grosso in the west, and Goyaz and Minas Geraes in the east.

The capital of Brazil is Rio de Janeiro,<sup>3</sup> which stands on the western side of a fine bay, one of the most magnificent of natural harbours. Rio de Janeiro (or Rio, as it is often called) has 860,000 inhabitants, and, with the exception of Buenos Ayres in the Argentine Republic, is the largest city in South America. Bahia (140, 800 miles to the northward of Rio, is the second city in the empire, and is also the seat of a great foreign trade. Pernambuco (180) ranks third in importance. This place consists really of several adjoining towns, which have grown into one, and of which that distinguished as Recife—the business quarter of Pernambuco—is the most considerable. Pernambuco is 450 miles north of Bahia.

The most northerly seaport of Brazil is Pará, which is situated on a fine estuary called the Rio do Pará, upon the north-eastern coast. Pará is by

1. The trade of Brazil with the United Kingdom amounts to about 19 millions sterling—imports therefrom, 7 millions; exports thereto, 6 millions. The principal exports from Brazil to the United Kingdom are raw cotton, sugar, indiarubber, and coffee.

2. Brazil was, until the bloodless revolution of November 15th, 1889, the only country in South

America under a monarchical government. On that day, however, the Emperor, Dom Pedro II., was deposed, and Brazil was declared a Republic under the title of the "United States of Brazil."

3. Founded by the Portuguese in 1567, and constituted the capital of Brazil in 1763, instead of Bahia.



position the great outport for the Amazon valley—a region of which the vast capabilities are as yet but little developed.

In the extreme south of Brazil, the two chief seats of commerce are the towns of **San Paulo** and **Rio Grande do Sul**. The first named lies upwards of 200 miles to the south-westward of Rio, and some miles inland. The maritime town of **Santos** constitutes its port. **Rio Grande do Sul** is near the southern extremity of the country, at the outlet of the large lake or rather lagoon of **Patos**.

#### QUESTIONS ON BRAZIL.

1. How is Brazil bounded? What is its area in square miles?
2. What constitutes the great natural feature of Brazil? Name the principal mountain ranges of Brazil.
3. Name the principal rivers.
4. Say what you know of the Amazon in its course through Brazil.
5. Describe briefly the climate and natural productions of Brazil.
6. What races of people constitute the popula-

- tion of Brazil? What language is spoken by its population? What form of religion prevails?
7. To what is the industry of the Brazilian population chiefly devoted?
8. Under what form of government is Brazil? When did Brazil become a Republic?
9. Into how many States is Brazil divided?
10. Name the capital and other chief cities of Brazil.
11. Where are the towns of **Pará**, **San Paulo**, and **Rio Grande do Sul**?

#### GUIANA.

**GUIANA**,<sup>1</sup> an extensive region in the north-eastern part of South America, is bounded on the *north* and *north-east* by the Atlantic Ocean, on the *south* by Brazil, and on the *west* by Brazil and Venezuela. It is divided into three parts, the most westerly of which belongs to Great Britain, the central to Holland, and the eastern to France, which are hence called **British**, **Dutch**, and **French Guiana**.

All the three divisions of Guiana are washed by the Atlantic Ocean, along the coasts of which extends a low plain of great natural fertility. The country rises thence towards the interior, and stretches south as far as the range of the **Sierra Acaray**.

The numerous *rivers* of Guiana are the most important among its natural features. The uniform direction of their main streams is from south to north, and they all discharge into the Atlantic.

**British Guiana** includes the rivers **Mazaruni**, **Essequibo**, **Demerara**, and **Berbice**; the **Corentyn** divides it from **Dutch Guiana**.

**Dutch Guiana** includes the river **Surinam**, and has the rivers **Corentyn** and **Maroni** on its western and eastern frontiers respectively.

**French Guiana** is bounded by the river **Maroni** on the west and by the **Oyapok** on the east.

All Guiana has a *tropical climate*. It is situated, indeed, within the heart of the *Torrid Zone*. But the climate, although undoubtedly trying to Europeans, is much less unhealthy than that of most other regions within the Tropics. The deadly fevers that prevail on the African coasts are unknown in South America. The soil is exuberantly fertile, the natural wealth of its forests is unbounded, and gold and other minerals have been discovered.

1. **BRITISH GUIANA**, the only British territory on the mainland of South America, extends along the north-eastern coast, from the mouth of the **Orinoco** to that of the **Corentyn**, and stretches in-

1. Guiana is so called from an Indian tribe, the *Guayanosa*. It was discovered by Columbus in 1496, and was first settled by the Dutch in

1690. The British portion of the country was finally ceded to England in 1814.

land for more than 400 miles to an as yet undetermined boundary. The colony has an area of 109,000 square miles, and a population of 300,000, of whom about 20,000 are whites.<sup>1</sup>

With a total area of twice that of England, only 83,000 acres are as yet under cultivation in this the most favoured of the three Guianas. Settlement is, in fact, almost confined to the narrow but exceedingly productive coast region, and here the predominant industry is the cultivation of the sugar-cane, and sugar forms over 90 per cent. of the export trade of the colony.

The government of the colony consists of a Governor appointed by the Crown, and a Court of Policy—a Legislative Council of 9 members, 5 of whom are elected. Georgetown (60), on the Demerara, a short distance above its mouth, is the capital. The only other considerable town is New Amsterdam (8), on the Berbice.

**2. DUTCH GUIANA**<sup>2</sup> or Surinam includes the middle portion of Guiana, and is divided from British Guiana on the west by the River Corentyn, and from French Guiana on the east by the River Maroni. The area is about 46,000 square miles, and the population about 60,000, mostly Negroes.

The commercial products are sugar, cacao, coffee, cotton, rice, bananas and other fruits, rum, molasses, and gold. The government is in the hands of a Governor, assisted by a Council and a Representative Assembly. The capital is Paramaribo (28), on the River Surinam.

**FRENCH GUIANA**,<sup>3</sup> or Cayenne, has an area of 46,850 square miles, and a population of about 26,000, one-sixth of whom are convicts.

Coffee and manioc are the chief products of the colony, which is, however, regarded as a mere penal settlement. The capital is Cayenne (8), a miserable place on a small island which adjoins the coast.

## VENEZUELA.

**VENEZUELA**<sup>4</sup> embraces part of the northern division of South America, and is bounded on the north by the Caribbean Sea, on the east by the Atlantic Ocean and British Guiana, on the south by Brazil, and on the west by Colombia. The area of Venezuela is estimated at 632,000 square miles, which is 10 times greater than that of England and Wales.

**NATURAL FEATURES.**—Venezuela includes the greater part of the basin of the Orinoco, with its extensive savannahs or llanos. These vast grassy plains are succeeded, at intervals, by forest-covered tracts of surprising richness.

The river Orinoco is first in importance among the natural features of Venezuela. It is joined by a great number of tributary streams, several among which rival the larger rivers of most other lands. About its outlet the Orinoco forms a delta of vast extent, intersected by numberless channels.

1. Although a British colony, most of the whites are Portuguese from Madeira and the Cape Verde Islands.

2. Taken by the English in 1660, but ceded to the Dutch in 1667. Again taken by the English in 1799 and 1804, but finally restored in 1814.

3. Settled by the French in 1664. Held by the British from 1809 to 1814.

4. Venezuela, little Venice. So called by the Spaniards from the Indian pile-houses which they found at the entrance of Lake Maracaibo. The present republic of Venezuela was formed in 1859.

The climate of Venezuela, though hot, is not unhealthy, excepting near the coast and in some of the low grounds that border on the rivers.

“The surface of Venezuela is naturally divided into three distinct zones—the agricultural, the pastoral, and the forest zone. In the first are grown the sugar-cane, coffee, cocoa, cereals, &c.; the second affords runs for cattle; and in the third, tropical products such as caoutchouc, tonca beans, copaiba, vanilla, growing wild, are worked by the inhabitants.” The Venezuelans possess millions of cattle, sheep, and horses, and their country is rich in metals and minerals. The Venezuelan goldfields are extremely rich, and there are extensive deposits of copper. The salt-mines yield a large revenue to the Government.

**INHABITANTS.**—Venezuela had, in 1890, a population of 2½ millions, among whom the Mestizoes, or half-castes of mixed Spanish and Indian blood, are by much the most numerous.

**Commerce.**—The chief commercial products are sugar, cocoa, coffee, tobacco, and cotton, with hides and cattle, gold and copper ore. The exports are valued at about 3½ millions sterling, and the imports at 2½ millions. The chief ports are LA GUAYRA, MARACAIBO, CIUDAD BOLIVAR, and PUERTO CABALLO.

**GOVERNMENT.**—The Republic of Venezuela contains 8 States, 8 Territories, and 3 Districts.

The various States are practically self-governing, the great object of their union being that of common defence. The Territories and Districts are directly controlled by the Central Government. The Revenue is a little over, and the Expenditure under, 1½ millions sterling. The Public Debt is about 4 millions sterling.

**Towns.**—The capital of Venezuela is the city of CARACAS (77), delightfully situated in a fertile mountain valley, 3,000 feet above the sea, and 12 miles distant from the shores of the Caribbean Sea. La Guayra (14), on the coast, forms its port, and has a large amount of foreign trade. Cumana and Barcelona, both to the eastward of Caracas, are also of some commercial importance. Cumana has a magnificent natural harbour. The island of Margarita, to the north of Cumana, belongs to this State.

The only other towns of any note are Valencia (89), and Maracaibo (84). Valencia is south-west of Caracas, and, like that city, lies a few miles inland; Puerto Caballo is its port. Maracaibo is on the west side of the channel, which connects the lake of that name with the sea. Bolivar or Angostura is the chief place in the valley of the Orinoco.

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## COLOMBIA.

THE REPUBLIC OF COLOMBIA is in the north-west corner of South America, and is bounded on the *north* by the Caribbean Sea, on the *east* by Venezuela and Brazil, on the *south* by Ecuador, and on the *west* by the Pacific Ocean.

The total area of the Republic is estimated at 331,000 square miles, or nearly 6 times that of England and Wales.

The population is about 3½ millions, about one-half of whom are Whites (of Spanish descent), and Mestizoes of mixed Indian and Spanish blood. The rest are Indians, a large number of whom are *Indios bravos*, or uncivilized. The State Religion, as in all the other Spanish republics of South America, is Roman Catholic. Primary education is free, but not compulsory.

**MOUNTAINS.**—South America is traversed by the loftiest and the most continuous system of highlands in the New World, namely, the Andes. Like North America, this continent exhibits the characteristic fact that its most elevated portions lie along the western side, and it exhibits this in a more eminent degree than is the case in the northerly half of the New World. The Andes lie much nearer to the Pacific Coast than the Rocky Mountains, and leave only a narrow plain between their western base and the sea.

South America has three mountain systems—the **Andean**, the **Parime**, and the **Brazilian**. The Andean system is much higher and far more massive than either of the other two, and, with the exception of the Himalayas, surpasses every other mountain chain on the earth's surface in altitude and continuity.

1. The **Andes** run in the direction of north and south, through the entire length of South America, from the Isthmus of Panama to Cape Horn. They form in some parts two, and in others three, distinct chains, with high plateaux enclosed between. The highest summit is **Sorata**, on the western border of Bolivia. This mountain reaches 24,812 feet above the sea, and is higher than any other in the New World. Even this great altitude, however, is 4,000 feet lower than that of the culminating peaks of the Himalayas.

Many other mountains in the vast system of the Andes exceed 20,000 feet in height, and no less than 20 peaks are upwards of 19,000 feet in height. A great number of snow-covered summits occur in the ranges enclosing the elevated tableland of **Titicaca**. Numerous high summits are also found in the immediate neighbourhood of the Equator: these were at one time supposed to be the loftiest mountains on the globe. Towards their southward extremity, the Andes diminish greatly in height, and make much closer approach to the neighbouring ocean. In Patagonia, the mountain system rises abruptly out of the waters of the Pacific. Through their entire course the Andes rise above the line of perpetual snow.

A great number of **active volcanoes** occur in the Andes, especially on the borders of Chili and in the neighbourhood of the Equator. The highest of them are **Chimborazo** (20,545 feet), and **Cotopaxi** (19,613 feet), both of which are within two degrees south of the Equator. Earthquakes are of frequent occurrence in most parts of the Andean region.

2. The **Parime System** comprises several ranges traversing the plateau which rises between the low plains of the Orinoco on the north, and the Amazon on the south. The main chain extends from the Casiquiare (the best known of those remarkable streams which connect the Orinoco basin with that of the Amazon) eastwards to the coast, near the mouth of the Amazon, and is known as the **Sierra Parime** in the west, and the **Sierra Acaray** in the east. The average elevation of these ranges is probably 4,000 feet, or about 2,000 feet higher than the plateau which they traverse.

3. The **Brazilian System** consists of numerous chains, some of which lie near the coast, others at a considerable distance inland. The coast ranges are the loftiest portions of the system; the highest points, however, seldom exceed 5,000 feet.

**TABLELANDS.**—The South American tablelands are found chiefly within the regions traversed by the Andes, and are enclosed between the double chains which are formed through large portions of that mountain system.

The highest among them is the **Plateau of Titicaca**, within Bolivia and Peru, which contains the large lake of that name, at an elevation of nearly 18,000 feet above the sea. The Plateau of Quito, which is crossed by the line of the equator, is at an elevation of 9,000 feet. There are other portions of the mountain

system in which the enclosed plateaux—bordered on either hand by snowy summits—exhibit similar elevations. These plateaux resemble the interior tablelands of the Asiatic continent, but are inferior to them both in altitude and in lateral dimensions.

**PLAINS.**—The whole interior of South America is but of moderate elevation. A series of great plains stretches from the shores of the Caribbean Sea southward to the estuary of the La Plata and the mouth of the Rio Negro. These plains separate the Andes from the mountain systems of Guiana and Brazil. They are naturally divided into three great portions, namely :—

1. The *llanos*, or grassy plains of the Orinoco valley.
2. The *selvas*, or forest plains of the Amazon valley.
3. The *pampas*, or plains of the La Plata region.

(1.) The *llanos* or *savannahs* resemble in general features the prairies of North America. They are vast natural meadows, portions of which are annually overflowed by the rivers.

(2.) The *selvas* exhibit a dense growth of natural forest. The forest-covered tracts are succeeded to the southward by grassy plains, which stretch from the upper portion of the basin of the Amazon into that of the Paraguay and other tributaries of the Rio de la Plata.

(3.) The *pampas* are vast plains which, according to the changes of the season, are alternately covered with herbage or with gigantic thistles. They stretch from the estuary of the La Plata to the base of the Andes.

**RIVERS.**—Nearly the whole of the South American continent has its slopes directed towards the Atlantic, and all its larger rivers consequently discharge into that ocean. The Andes lie so near to the Pacific as to leave no room for the formation of any considerable streams upon their western side.

Three of the rivers of South America are greatly superior to the others in magnitude and geographical importance, namely, the *Orinoco*, the *Amazon*, and the *Rio de la Plata*. The Amazon alone drains an area equal to more than a third of the continent, and the three together water nearly three-fifths of its total extent.

Of the smaller rivers, the principal are the *Atrato* and *Magdalena*, to the west of the Orinoco; the *Essequibo*, *Demerara*, *Berbice*, *Corentyn*, *Surinam*, and *Maroni*, between the Orinoco and the Amazon; the *Maranhão*, *Paranahyba*, *San Francisco*, and *Parahyba*, between the Amazon and the La Plata; and the *Colorado*, *Negro*, *Chubut*, and *Santa Cruz*, south of the La Plata.

1. The river **Orinoco**, which has a length of 1,500 miles, waters the region of the *llanos* or grassy plains. It rises in the western defiles of the Parime Mountains, and is joined by numerous tributaries in its circuitous course to the sea. The most remarkable feature of the Orinoco is that, about 180 miles below its source, the river divides into several branches, the best known of which flows to the south-westward, under the name of the *Casiquiare*, and joins the Rio Negro, an affluent of the Amazon. The Orinoco is thus connected, by a natural channel, with the basin of the river Amazon. There is no other instance in the world of the permanent bifurcation of a river of such magnitude, though a few similar examples occur elsewhere among streams on a smaller scale.

## PERU.

THE REPUBLIC OF PERU is on the western side of South America, and is bounded on the *north* by the Republic of Ecuador, on the *east* by Brazil and Bolivia, on the *south* by Bolivia and Chili, and on the *west* by the Pacific Ocean.

Peru has a coast-line of about 1,300 miles, and an area of 500,000 square miles—about 10 times the size of England.

The population of Peru is about 3 millions, three-fifths of whom are Indians, the rest are Mestizoes of mixed race, and Whites of Spanish descent.

**NATURAL FEATURES.**—Peru includes (1) a large portion of the Andes; (2) a plain along the Pacific Coast, between the mountains and the sea; and (3) a more extensive plain which stretches from the eastern base of the mountains into the interior.

1. The portions of the *Andes* which traverse Peru include some of the highest elevations of the mountain system. Cold and barren tablelands, which rival in elevation the lofty plateaux of Central Asia, are included between the exterior chains or cordilleras. *The Tableland of Pasco* (between 10° and 11° S. lat.) reaches 11,000 feet, and the tableland which contains the *Lake of Titicaca*, further to the southward, is still more elevated.

2. *The Coast Plain* constitutes, however, the most remarkable feature in the physical geography of Peru. It is, almost throughout its entire extent, an arid and sandy region, in which the only verdure found is on the immediate banks of the numerous short streams by which it is traversed.

3. Peru includes the upper portion of the great river *Amazon*, and the chief tributaries by which it is joined, either within the mountain region, or shortly after its issue from the mountains.

**CLIMATE.**—The climate of Peru varies with the most striking differences in its physical conformation. The mountain region is cold. The coast plain is as intensely hot and arid as the *tehama* of the Arabian peninsula—a tract which it resembles in many respects. Rain is almost unknown here, and the dense mists which are of periodical recurrence are the only source of moisture. The plains to the east of the mountains are watered by abundant rains.

**PRODUCTIONS.**—Peru has great agricultural resources and still greater mineral wealth, but its mines of gold, silver, and quick-silver, long the richest in the world, are now only worked to a limited extent.

All the rich productions of the South American forests—gums, balsams, cinchona-bark, vanilla, sarsaparilla, and the caoutchouc-tree—abound in Peru, and the food-plants of Europe thrive at various elevations among the mountain region. The guano procured from the little group of the Chincha Islands (13° 40' S. lat.) for many years formed one of the chief items in the Peruvian export trade. These and other deposits are now to a great extent exhausted, but recent surveys show the existence of rich deposits of this invaluable fertilizer on the coast of the mainland. The export of sugar has largely increased within recent years. The development of the resources of the country has been greatly facilitated by the construction of an extensive system of railways. The disastrous war with Chili so disorganized the trade and industry of the country, that they have not yet regained their previously flourishing condition.

**Commerce.**—The commerce of Peru is chiefly with Great Britain and Germany. Annual value, about 3 millions sterling.

The chief exports are **cotton, hides, skins, straw hats, sugar, silver, cinchona, cocoa, and wool** (sheep and alpaca). The exports and imports from the United Kingdom are valued at about 1 million sterling a year.

**GOVERNMENT.**—Peru, like the rest of the South American States, is a Republic.<sup>1</sup>

**Towns.**—The capital of the Republic is the city of **LIMA** (180), which is 6 miles distant from the coast of the Pacific. Lima was founded (A.D. 1535) by Pizarro, whose remains lie within its magnificent cathedral. **Callao**, on the adjacent coast, is the port of Lima, and the commercial outlet of Peru. **Pasco, Cuzco, and Arequipa** are among the most considerable inland cities of Peru; **Paita** and **Mollendo** are important seaports. Pasco is famous for its rich silver mines, and is connected by rail with Lima and Callao. **Cuzco** (20) is a city of early Indian origin, the former capital of the Incas or native sovereigns of Peru. It stands in an Andean valley, at an elevation of more than 11,000 feet above the sea, and is connected by a railway with the coast.

## BOLIVIA.

**THE REPUBLIC OF BOLIVIA**, which derives its name from the great liberator of Spanish South America, Simon Bolivar, is an inland State, bounded on the *north* and *east* by Brazil, on the *south* by the Argentine Republic and Paraguay, and on the *west* by Peru and Chili.

The *area* of Bolivia is considerably greater than that of Chili, being estimated at 483,000 square miles, or about eight times that of England and Wales.

The present population of Bolivia is estimated at 2½ millions, of whom the aboriginal Indians number over a million, the Mestizoes or mixed races about half a million, and the Whites also about half a million. The Whites, as is the case along the whole western side of the South American continent, are Spaniards or of Spanish descent.

**NATURAL FEATURES.**—Some of the highest portions of the Andes are within Bolivia. The border-line between Peru and Bolivia crosses the high tableland of Titicaca, the larger portion of which is within the latter State. On either side of the tableland are ranged some of the highest summits of the mountain system. One of the number—the peak of *Sorata*, which attains an elevation of 24,812 feet—surpasses in height even the lofty cone of Aconcagua, in the Chilian Andes, which was formerly regarded as the culminating summit of the New World.

To the east of the **Bolivian Andes**, vast plains stretch towards the interior of the continent. These are watered by numerous rivers, some of which belong to the basin of the **Amazon**, others to that of the **Paraguay**. **Lake Titicaca** is partly within Bolivia and partly in Peru. The basin of this lake is entirely inland; the **Desaguadero River**, which issues from it, is lost in the salt lake of **Uros**, to the south-east.

1. The Revenue is now over, and the Expenditure under, 1½ millions sterling a year. The external Foreign Debt (about 8½ millions sterling, contracted in England in 1870-72) was cancelled by the cession, in 1890, to the bondholders

of all the State railways, guano deposits, mines, and lands for 66 years, the bondholders undertaking to complete and extend the existing railways.

**CLIMATE and PRODUCTIONS.**—The climate and productions of Bolivia resemble those of Peru. Like that country, it abounds naturally both in mineral and vegetable wealth.

The commercial productions of Bolivia include *precious metals, bark*, and the wool of the alpaca and other animals of the llama tribe. The principal agricultural products are *maize, rice, barley, oats, cotton, cocoa, indigo, india-rubber, coca, potatoes*, and the choicest *fruits*, with *cinchona bark, medicinal plants, &c.* Coca is one of the most important products of the country, while there are over five million cinchona trees, which yield 200,000 lbs. of bark annually. The culture of the *coffee plant* is extending.

**Commerce.**—Nearly one-half of the imports, which average  $1\frac{1}{2}$  millions a year, are believed to come from the United Kingdom, mainly through the Peruvian port of Arica. Two-thirds of the exports, which amount to  $1\frac{1}{2}$  millions a year, consist of silver. As Bolivia has no sea-coast, her products pass through Peruvian and Chilean ports and Buenos Ayres.

**Government.**—The government of the Republic is entrusted to a President and a Congress of two Chambers, elected by universal suffrage. The State religion is the Roman Catholic. There are 500 primary schools and 5 universities.

**Towns.**—The capital of Bolivia is Sucre or Chuquisaca, but the seat of Government is usually La Paz. SUCRE (17) is situated on the interior plateau, at an elevation of more than 9,000 feet. Potosi (12), to the south-west of the capital, is a more famous city, on account of the rich silver mines with which its name was formerly so long associated.† The town of La Paz (57), which stands only a short distance from Lake Titicaca, is more populous, and commercially more important, than any other place in Bolivia, and the chief transit trade of the country passes through it. Cochabamba (20) is an important agricultural centre. Santa Cruz (10) is the chief town to the east of the Cordilleras, and will shortly be united by rail with the River Paraguay.

#### QUESTIONS ON PERU AND BOLIVIA.

1. On which side of South America is Peru?
2. What three natural divisions does the physical geography of Peru include?
3. What kind of region is the coast plain of Peru?
4. What great river has its upper portion within Peru?
5. Say what you know concerning the climate and mineral and vegetable productions of Peru.
6. From what group of islands is guano obtained?
7. Name the chief city and port of Peru.
8. Where are the following places:—Cuzco, Arequipa, Pasco, Paita, and Arica? Which of these is famous for its silver mines?
9. By what circumstance is Cuzco historically distinguished?
10. Point to Bolivia on the map, and name its boundaries.
11. What great lake is on the borders of Bolivia and Peru?
12. What kind of country is to the west of the Bolivian Andes? What to the east?
13. Mention some of the commercial productions of Bolivia.
14. Point out the following places on the map:—Sucre, Potosi, Cochabamba, and La Paz. Which of them is the capital of Bolivia?
15. Under what form of government are Peru and Bolivia? What religion is followed?

#### CHILI.

The REPUBLIC OF CHILI includes the comparatively narrow strip of country on the western coast of South America, between the Andes and the Pacific. It is bounded on the *north* by Peru; on the *north-east*, by Bolivia; on the *east*, by the Argentine Republic; and on the *west* and *south*, by the Pacific.

Though of such narrow limits in the direction of east and west, the area of the Provinces and Territories included in the Republic is not less than 294,000

1. The silver mines of Potosi alone are estimated to have produced silver, amounting in value to 600 millions of pounds sterling, from their discovery in 1545 down to 1864, but they are not much worked now.



square miles, or more than 5 times that of England and Wales. The extreme length is over 2,800 miles, but the breadth, even north of Valdivia, is on an average not more than 100 miles.

**NATURAL FEATURES.**—The stupendous cordillera which forms its eastern boundary is the great feature of Chili. The **Chilian Andes** include some of the highest summits of the mountain system—the loftiest being the peak of *Aconcagua*. Numerous other high summits, many of them volcanoes, occur both to the north and south of this peak.

The plain between the Andes and the sea is much broader within Chili than on other parts of the western coast. This plain is not uniformly level, but diversified, for the most part, by hills of moderate altitude, with watered valleys between. Towards the extreme north, however, it passes into a perfectly arid region, called the *Desert of Atacama*, which is now within Chili. This is a perfectly sterile wilderness, devoid of rain and entirely destitute of verdure.

**Rivers.**—Chili contains numerous rivers, which uniformly have their courses to the westward, flowing from the Andes into the Pacific Ocean. The longest of them is the *Biobio*.

**Climate.**—The climate of Chili is temperate and healthy, becoming gradually cooler towards the south. The northern part of the country is nearly rainless.

**TRADE and INDUSTRIES.**—Agriculture and mining are the chief industries in Chili, and animals and animal products are a great source of wealth.

The country is barren and sandy in the north, but extremely fertile and productive in the south, where most of the people are engaged in agriculture, producing annually about 21 million bushels of wheat, and 24 million gallons of wine. Live animals, with wool, hides, skins, and other animal products, are important items in the exports, but the chief sources of wealth are the nitrate deposits of the north, the copper and silver of the centre, and the iron and coal of the south. Mining products form five-sixths of the exports, while the agricultural products only amount to about one-ninth of the whole. Nitrates form the bulk of the mining products, while wheat and wine are the principal products of the soil.<sup>1</sup>

**GOVERNMENT.**—Chili is a Republic,<sup>2</sup> under an elective President. The legislative power is vested in a National Congress or Parliament.

Chili has a population of over 3 millions. It includes a larger proportion of the white race (Spanish) than is the case in other countries of South America. The Roman Catholic religion is uniformly followed by the Chilian people. Education is free and at the cost of the State. There is a university at Santiago.

**Divisions and Towns.**—The Republic is divided into 23 Provinces. The chief towns are **Santiago**, the capital, and **Valparaiso**, the chief port.

1. The total imports and exports each amount to about 13 millions sterling. About two-fifths of the foreign trade is carried on with Great Britain—the imports therefrom and exports thereto each amount to about 3½ millions sterling annually—the rest chiefly with Germany, France, the United States, and Peru.

2. Chili proclaimed its independence of Spain in 1810. The war with Peru and Bolivia closed, in 1881, with the total defeat and dispersion of the Peruvian army at *Chorillos* and *Miraflores*, and the surrender of Lima and Callao to the

Chilians. A treaty of peace was signed in 1883. During the civil war of 1891 in Chili, between the President, who evidently aimed at a Dictatorship, and the Congressionalists or Parliamentary party, several battles were fought, and much blood was shed and property destroyed. The conflict was ended by the capture of Valparaiso after a hotly contested battle at *Vina del Mar*, and the subsequent occupation of Santiago by the Congressional troops. The ill-starred President Balmaceda shot himself in the Argentine Legation at Santiago.

**SANTIAGO** (200), the capital of Chili, is an inland city, about midway between the Andes and the ocean. The chief seaport is **Valparaiso** (105), which is the most important centre of commerce on the west coast of South America. The city of **Concepcion** (24), on the River Biobio, to the south of Valparaiso, is also of considerable commercial importance. On the coast, to the north of Valparaiso, are numerous ports, among which **Cochimbo** and **Iquique** (16) are the most important. In the northern portion of the country are the ports of **Antofagasta** and **Cobija**. **Tarapacá**, at the foot of the Andes, is the chief town of the ceded Peruvian province. The ports of **Tacna** and **Arica** and the adjoining districts are also provisionally held by Chili.

## THE ARGENTINE REPUBLIC.

**ARGENTINA** or the **ARGENTINE**<sup>1</sup> **REPUBLIC** includes the group of States formerly known as the 'United Provinces of the Rio de la Plata,' and now consists of 14 Provinces and 9 Territories. The area of the Provinces is stated to be 515,700 square miles, and that of the various Territories 719,300 square miles, so that the republic has a total area of no less than 1,335,000 square miles, or nearly 20 times that of England and Wales.

Argentina is bounded on the north by **Bolivia**, on the north-east by **Paraguay**, on the east by **Brazil**, **Uruguay**, and the **Atlantic Ocean**, and on the west by **Chili**.

The republic is very thinly peopled, the total number of inhabitants being not more than 4½ millions, a very small number for such an immense country, averaging only 3 per square mile.<sup>2</sup>

The Spanish language prevails throughout Argentina. The Roman Catholic religion is uniformly followed. The primary schools are maintained by the general and provincial governments. There are 2 universities and about 50 normal schools and lyceums.

**NATURAL FEATURES.**—The greater part of the Argentine Republic is an immense plain. This plain includes, in the south, the region of the *Pampas*, and, in the north, the larger portion of an extensive tract called the *Gran Chaco*—a succession of grassy plains, of the highest natural fertility, though tenanted only by wild beasts or by savage Indians.

**Rivers.**—The rivers of Argentina are of first-rate magnitude. Among them are the *Paraguay*, the *Parana*, and the *Uruguay*, the three great feeders of the extensive estuary entitled the *River Plate* (Rio de la Plata). The whole region, with the exception of a very small tract in the extreme north, is within the Temperate Zone, and the climate is not generally warmer than that of southern Europe.

**PRODUCTIONS.**—The vast herds of **cattle** and **horses** and the enormous flocks of **sheep** which are reared on the immense pastures, constitute the wealth of Argentina, and animals and animal products form the chief exports.

1. Argentina, from the Latin *argentum*, silver.  
2. So called from the *Rio de la Plata*, i.e., the River of Silver.

3. A larger proportion of the Argentine people are of white race than is the case in the countries further north. The whites are chiefly, but by no means exclusively, of Spanish descent.

The increase of population within recent years is due mostly to immigration, chiefly from the south of Europe, the Italians forming 70 per cent and the Spaniards only 10 per cent of the new comers. Over a million settlers entered the country between 1882 and 1890.

**Agriculture** is, however, progressing rapidly, and about 10,000 square miles of land are now under cultivation. The chief crops are wheat and maize, but a large acreage is devoted to alfalfa, oats, flax, vine, sugar-cane, and other cultures. The **mineral wealth** is great, but almost undeveloped; some gold, silver, and copper are exported.

**Trade.**—The commerce of the Argentine Republic is very large, and has nearly doubled during the last decade. Present value, about 56 millions sterling.

The foreign trade is mainly with **Great Britain, France, Germany, Belgium, and the United States.**<sup>1</sup> The chief articles of export are wool, hides and skins, live animals, frozen and salted meat, tallow, maize, wheat, linseed, &c.

Nearly 7,000 miles of **railways** connect the principal cities of the Republic with the capital and chief seaport, **BUENOS AYRES**, and there are, besides, some 5,000 miles under construction.

**GOVERNMENT.**—Each of the Argentine Provinces is a distinct republic, the whole constituting together a **Federal Republic.**<sup>2</sup>

**Divisions.**—The Argentine Republic is divided into 14 Provinces and 9 Territories. The Provinces may be arranged in three groups:—(1) Littoral, (2) Central, and (3) Andean.

The **Littoral Provinces**, 4 in number, are *Buenos Ayres, Santa Fé, Entre Rios, and Corrientes.* The Province of Buenos Ayres is the largest and most important of all the Argentine provinces. This Province, with the city of the same name, which forms the capital of the Republic, contains considerably more than a third of the entire population of the country. The city of **BUENOS AYRES** (561), stands on the south side of the magnificent estuary of the La Plata, and is the most important commercial centre, not only of the Argentine Republic, but also of all South America. The capital of the Province of Buenos Ayres is **La Plata**, also on the same river, 40 miles south-east of the Federal capital.

The **Central Provinces** of the Republic are also 4 in number. They are *Cordoba, San Luis, Santiago del Estero, and Tucuman.* These four provinces are named after their chief towns, all of which are united by rail with Buenos Ayres.

The **Andean Provinces** of *Rioja, Catamarca, San Juan, Mendoza, Salta, and Jujuy* (also named after their chief towns) are, with the exception of the Patagonian and the Chaco Territories, the most thinly-peopled portion of the Republic.

The **Argentine Territories**, 9 in number, are *Misiones, Formosa, and Chaco* in the north; *La Pampa* in the centre; and *Rio Negro, Neuquen, Chubut, Santa Cruz, and Tierra del Fuego* in the south. The Territory of **Misiones** is in the north-east, between the Parana and the Uruguay, which here approach each other, and are connected by a short railway. **Formosa** and **Chaco** are both within the vast El Gran Chaco. **La Pampa**, as the name shows, is within the Pampas region, between the Province of Buenos Ayres and the Andean Territory of **Neuquen.** The other Territories are within the extensive and comparatively barren region known as Patagonia, which, until recent years, was inhabited only by a few thousand uncivilized Indians. The **Rio Negro** Territory is bounded on the north by the Colorado River, and is traversed by the Rio Negro, at the mouth of which is Viedina, the only town. The Territory of **Chubut** or **Chuput** is named from the river which flows through it; near the mouth of the Chubut is Rawson, the centre of a prosperous Welsh colony, connected by a railway with Port Madryn, on a fine inlet, the Baia Nueva. The Territory of **Santa Cruz** includes the southern part of Patagonia, and its chief river and town are also named Santa Cruz.

1. The trade with Great Britain is very large and steadily increasing, the exports from the Republic to Great Britain amounted, in 1880, to over 4 millions sterling, while the imports of British produce—principally machinery, hardware, and cotton, woollen, and linen goods—the same year, were valued at 8½ millions sterling.

2. When these Provinces first declared their independence of Spain, in the early part of the present century, they were sixteen in number. But two among them subsequently separated from the federal body and assumed the position of independent States. These are Paraguay and Uruguay.

## PARAGUAY.

THE REPUBLIC OF PARAGUAY, the "Mesopotamia of South America," is to the north-east of the Argentine Republic. It is enclosed between the great rivers *Parana* and *Paraguay*, and is bounded on the north and east by Brazil.

Paraguay has now an area of only 91,970-square miles; and a population of about 830,000, besides 60,000 semi-civilized, and 70,000 uncivilized Indians. Its most characteristic article of produce is the *yerba maté* or Paraguay tea, which is extensively used in South America like tea in the Old World. Yerba maté, tobacco, hides and skins, oranges, sugar, &c., amounting to about half a million sterling, form the chief exports. About half the imports come from Great Britain. The chief town of Paraguay is **ASUNCION** (35), on the River Paraguay. Only three other towns—*Villa Rica*, *Concepcion*, and *San Pedro*—have over 10,000 inhabitants.

## URUGUAY.

THE REPUBLIC OF URUGUAY lies to the north of the La Plata. The River Uruguay forms its western border. On the east it is bounded by the Atlantic Ocean, and on the north by Brazil.

Uruguay includes 72,000 square miles, and has a population of about 700,000. Its capital is **MONTE VIDEO** (172), which stands on the north bank of the Rio de la Plata, at the entrance of that estuary. Monte Video occupies a position admirably suited for maritime commerce, of which it enjoys a large share. The rearing of cattle and sheep is the leading industry in the republic, and an active trade is carried on, chiefly with Great Britain and France, the principal articles of export being *cattle*, *hides*, *preserved meat*, *wool*, and *tallow*. **Fray Bentos** and **Faysandu** have important preserved-meat manufactories.

## THE FALKLAND ISLANDS.

The British Crown Colony of the **FALKLAND ISLANDS** is situated in the South Atlantic, about 300 miles east of Magellan Strait.

The Colony consists of two large islands—*East Falkland* and *West Falkland*—and about a hundred smaller islands. The total area is about 7,500 square miles, and the population about 2,000. The staple industry on these treeless but well grassed islands is pastoral—large numbers of sheep, cattle, and horses are reared, and wool, tallow, hides and skins, and sheep form the chief exports from **PORT STANLEY**, a free port at the head of Port William on the coast of East Falkland, and which is not only the capital, but also the only important settlement in the colony.<sup>1</sup>

## QUESTIONS ON CHILI, ARGENTINA, PARAGUAY, &amp;c.

1. How is Chili bounded on the east, west, and north?
2. Give some account of the natural features of Chili.
3. What productions of the mineral kingdom belong to Chili? What articles constitute its commercial produce?
4. Name the capital of Chili, also its chief seaport.
5. Where are Concepcion and Coquimbo?
6. Under what form of government is Chili? What language is spoken there? What religion is followed?
7. Where is the Argentine Republic? How is it bounded?
8. Where is the tract of country known as the Gran Chaco? What natural features does it exhibit?
9. What three great rivers belong to Argentina? Into what estuary are their waters discharged?
10. In what does the wealth of the Argentine Republic chiefly consist?
11. What articles constitute the commercial produce of this region?
12. What city forms the capital of the Argentine Republic? On what river is it?
13. How many provinces are at present included within the Argentine Republic? What two States, now independent, were formerly members of the Argentine Confederation?
14. Name and point out on the map the nine Territories of Argentina.
15. Where is Paraguay? What two great rivers bound it on either side?
16. Name the capitals of Paraguay and Uruguay respectively.
17. What characteristic article of natural produce does Paraguay furnish?
18. To whom do the Falkland Islands belong? What town do they contain?

<sup>1</sup> The Falkland Islands were discovered by Davis in 1592. They were taken possession of by the British Government, as a station for the protection of the whale fishery, in 1833.

## O C E A N I A .

OCEANIA, the fifth grand division of the land surface of the globe, embraces the vast "world of islands" in the Pacific Ocean, and also includes the great island-continent of Australia<sup>1</sup> and the smaller islands between the Pacific and the Indian Oceans.

Oceania thus includes the two great divisions of **Australasia** and **Polynesia**, and some geographers include in addition the Malaysian or East Indian Archipelago.

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### AUSTRALASIA.

AUSTRALASIA, that is, Austral or Southern Asia, is the general name given to the larger British Colonies and Possessions in Oceania. Australasia thus includes the great island-continent of **Australia**, the islands of **Tasmania** and **New Zealand**, together with the **Fiji Islands** and **British New Guinea**.

**Australia**, which is, strictly speaking, an island, but an island of such an immense size that it may well be regarded as a continent,<sup>2</sup> is politically divided into **five distinct colonies**, at present independent of each other.

The **Five Colonies of Australia** are *New South Wales* (the Mother-Colony of Australia), *Victoria*, *Queensland*, *South Australia*, and *Western Australia*; and their absolute and relative position may be readily grasped by regarding the continent as divided into three parts—Western, Central, and Eastern—by the 129th meridian east, and by another line formed by the 138th meridian in the north and the 141st in the south. The *Western* part consists entirely of **Western Australia**, the *Central* section comprises **South Australia** and its Northern Territory, while the *Eastern* division includes the three colonies of **Queensland** in the north, **New South Wales** in the middle, and **Victoria** in the south.

The Colony of **Tasmania** is an island to the south of Victoria and separated from it by Bass Strait.

The Colony of **New Zealand** consists of two large islands, and a number of smaller islands in the South Pacific Ocean, about 1,200 miles to the south-east of Australia.

The **Fiji Islands**, a British Crown Colony, are also situated in the Pacific, about 1,000 miles north of New Zealand.

**British New Guinea** includes the southern and south-eastern part of the island of New Guinea, which lies off the north-eastern coast of Australia, at a distance of about 60 miles from it.

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1. The greater part of South America, and a considerable portion of Africa, are within the Southern Hemisphere, but Australia is the only one of the continents wholly to the south of the Equator, its extreme northern point being in nearly 11° South lat., or 770 miles from it.

2. As an island, Australia is by far the largest

in the world. Greenland is the next in size, and New Guinea, the third largest island, is only one-tenth the size of Australia.

As a continent, Australia is the smallest of the six great land-masses on the surface of the globe. But it is not much inferior in extent to Europe, which is only about one-fifth larger.

**EXTENT.**—Some idea of the immense extent of Australasia may be gained by comparing the areas of the various colonies with that of Great Britain and other countries. Australia alone has an area of nearly 3,000,000 square miles, or 33 times that of Great Britain, while New Zealand, Tasmania, Fiji, and British New Guinea have together an area of 226,000 square miles, or nearly 4 times that of England and Wales.

Australasia has thus a total area of no less than 3,161,000 square miles, or 26 times the size of Great Britain and Ireland, 15½ times the size of France, and rather larger than that of the United States of North America, and only about one-sixth smaller than that of all the countries of Europe taken together.

The proportion in size of the Australian colonies to each other and to the whole continent may be readily seen by the following comparison:—If a continent were divided into 100 equal parts, Victoria would comprise 3 such parts; New South Wales, 10; Queensland, 23; South Australia, 30; and Western Australia, 34.<sup>1</sup>

**DISCOVERY.**—The “Great South Land” was probably first seen by a French navigator in 1503, but it was not practically made known to the world until 1770, when the famous Captain Cook explored the whole eastern coast, from Cape Howe to Cape York, and took formal possession of the country, to which he gave the name of New South Wales, from a real or fancied resemblance to the southern part of the Principality of Wales.

**Settlement.**—The first settlement in Australia was formed in 1788 at **Sydney Cove**, the neighbourhood of **Botany Bay**, which had been, on Cook's recommendation, chosen as the site of the new settlement, being found utterly unsuitable.

**Exploration.**—Since the discovery and occupation of Australia, a succession of dauntless explorers have crossed and recrossed the continent, in order to ascertain its character and capabilities for settlement.

**GOVERNMENT.**—All the Australasian colonies, except Fiji and British New Guinea, which are Crown Colonies, possess **responsible government**.

The form of government is similar to that of the United Kingdom. At the head of the executive in each colony is a **Governor**, representing the Queen, and appointed by the Crown. The legislative power is vested in a Parliament of two Houses—the **Legislative Council**, nominated or elected, corresponding to the British House of Lords, and the **Legislative Assembly**, elected by the people, exercising similar powers to the British House of Commons.<sup>2</sup>

1. *The Australian Hand-Book* (Gordon & Gotch).

2. The first step towards the Federation of the Australasian Colonies was taken in 1886, when a Federal Council, at which representatives from Victoria, Queensland, Tasmania, Western Australia, and Fiji, were present, met at Hobart for the first time. The Council met subsequently in 1888 and 1889. In 1889, South Australia took part in the Conference, but New South Wales and New Zealand were not represented. In 1890, a Conference of Repre-

sentatives of all the Australasian Colonies met at Melbourne, and resolved to take steps towards the holding of a “National Australasian Convention,” to consider and report upon a scheme of Federal Government.

At the National Australasian Convention, which held its sittings in Sydney, in 1891, the Constitution drafted for the proposed “Commonwealth of Australia” was submitted to the delegates representing the whole of the Australasian Colonies.

## AUSTRALIA.

AUSTRALIA, the "Southern Land," is, strictly speaking, an island, but an island of such an immense size that it may well be regarded as a continent.

**Boundaries.**—Australia is bounded by the ocean on every side—by the Pacific on the east, the Indian Ocean on the west, and the Southern Ocean on the south, while Torres Strait, the Arafura Sea, and the Timor Sea, separate it from the Melanesian and East Indian Archipelagoes on the north, and Bass Strait from the island of Tasmania on the south-east.

**Extent.**—The greatest length, from Steep Point on the west to Cape Byron on the east, is about 2,400 miles. The greatest breadth, from Wilson Promontory on the south to Cape York on the north, is nearly 2,000 miles. The total area of Australia is nearly 3,000,000 square miles.<sup>1</sup>

**COASTS.**—Australia is much more solid and unbroken in shape or external contour than Europe—more so, indeed, than any of the other continents, except Africa and South America. The total length of coast-line is estimated at 10,000 miles—an average of 1 mile of coast to every 300 square miles of area.

1. **Inlets.**—The great bight known as the *Gulf of Carpentaria*, on the north, and the corresponding incurve of the *Great Australian Bight*, on the south, are by far the most extensive. Of the smaller inlets, the most noteworthy are *Port Phillip*, *Encounter Bay*, the *Gulf of St. Vincent*, *Spencer Gulf*, and *King George Sound*, on the south coast; *Géographe Bay*, *Shark Bay*, *Exmouth Gulf*, and *King Sound*, on the west coast; *Cambridge Gulf*, *Van Diemen Gulf*, and *Arnhem Bay*, on the north coast; and *Princess Charlotte Bay*, *Halifax Bay*, *Broad Sound*, *Hervey Bay*, *Moreton Bay*, *Broken Bay*, *Port Jackson*, and *Botany Bay*, on the east coast.

2. **Straits.**—The two principal straits are—*Torres Strait*, in the north, and *Bass Strait*, in the south. Torres Strait divides Australia from New Guinea. Bass Strait intervenes between the Australian mainland and the neighbouring island of Tasmania.

3. **Capes.**—The principal capes are *Cape York*, the most northerly point; *Cape Byron*, the most easterly; *Wilson Promontory*, the most southerly; and *Steep Point*, the most westerly point.

4. **Islands.**—With the single exception of *Tasmania*, there are no large islands off the coasts of Australia. The principal are *Kangaroo Island*, off the coast of South Australia; *Stradbroke*, *Moreton*, *Fraser* or *Great Sandy*, and *Hinchinbrook Islands*, off the east coast of Queensland; *Wellesley Islands* and *Groote Eylandt* (Great Island), in the Gulf of Carpentaria; *Melville* and *Bathurst Islands*, off the coast of the Northern Territory; and *Dirk Hartog Island*, at the entrance to Sharks Bay, off the coast of Western Australia.

1. The actual area of Australia is computed at 2,944,928 square miles, or 26 times that of Great Britain and Ireland. The largest of its five divisions, Western Australia, has an area of over 1,000,000 square miles, or more than 8 times the size of the United Kingdom; the smallest colony, Victoria, with an area of 37,384 square miles, is nearly as large as Great Britain. New South Wales comprises an area of 309,175 square miles,

or 2¼ times the size of Great Britain and Ireland. Queensland, with an area of 668,224 square miles, is 5¼ times as large as the British Isles, while South Australia, with an area of over 803,425 square miles, is nearly 8 times the size of the mother country, or 15 times as large as England and Wales alone. The five Colonies together are very nearly equal in area to the United States, exclusive of Alaska.

**NATURAL FEATURES.**—"Australia is an immense plateau, with a narrow tract of land sometimes intervening between the edge of this elevated area and the sea. The *east* side is the highest, averaging about 2,000 feet above the ocean. The *west* side is not more than 1,000 feet above the same. The *north* is a little higher. The *south* side is either level with the ocean, or abuts in cliffs upon the sea, ranging from 300 to 600 feet in height."<sup>1</sup>

"The general character of all the seaward side of the tableland is precipitous, but on the south-east angle of the continent the tabular form disappears, and there is a true cluster of mountains—the Australian Alps—whose highest elevation is a little over 7,000 feet. This group is near the sea (Bass Strait), and to the southward there is another group of almost equally high mountains which forms the island of Tasmania."

**MOUNTAINS.**—In Australia, as in Southern Africa, the higher grounds run from south to north, at no great distance from the eastern coast. These elevations on the eastern side of Australia form a continuous, though most irregular, cordillera or chain of heights, extending from Cape Howe to Cape York, and known by the general name of the **Great Dividing Range**.

Various names are applied to the different portions of this long range. The southern portion bears the name of the **Australian Alps**; further north, the range forms the well-known **Blue Mountains**, and, still further north, it is known as the **Liverpool Range**, &c. The Australian Alps are the loftiest part of the chain, and contain the highest of all the Australian Mountains—*Mount Townsend*, 7,256 feet in height. *Mount Kosciuszko*, in the same range, is the next highest in elevation.

In Victoria, the high lands to the west of the Great Dividing Range culminate in two distinct ranges running north and south, and known as the **Gramplains** and the **Pyrenees**.

In South Australia, the principal range runs along the eastern side of the Gulf of St. Vincent and Spencer Gulf. It is known in the south as the **Mount Lofty Range**, and in the north as the **Flinders Range**.

The western coasts are also backed by high grounds of moderate elevation, the principal portion of which, known as the **Darling Range**, runs parallel to the coast at a distance of from 10 to 25 miles.

**RIVERS.**—Although a large number of rivers are met with on the coast of Australia, there is but one river—the **Murray**—which at all approaches the larger streams of other continents.

The chief characteristic of the rivers of Australia is their liability to sudden and violent floods, and too many of them are, unfortunately, mere surface torrents, supplied by the rains, which are, over the greater part of the interior, both scanty and irregular. During seasons of drought, they are speedily dried up under the intense heat of an Australian sun, or converted into a chain of ponds. With the recurrence of the rainy season, vast floods of water are poured through their beds, and huge trunks of trees, masses of rock, and other *débris*, carried down by the stream, bear witness to the violence of the torrent. The Murray and its chief tributaries are perennial streams, but their volume of water undergoes great variation according to the season of drought or rain.

1. Rev. J. Tenison-Woods.  
2. The mountains of Tasmania, which are divided into two sections by the valleys of the Tamar and the Derwent, may be regarded as

outliers of the great Australian Cordillera. Several peaks rise over 4,000 feet—the culminating point, *Oradie Mountain*, attaining an elevation of 5,000 feet.



1. The Australian Section of the Pacific River System comprises several large and permanently-flowing rivers. Of the coast streams of Queensland, the principal are the **Burdekin**, the **Fitzroy**, the **Burnet**, and the **Brisbane**, all of which are navigable for steamers of considerable tonnage for some distance inland. In New South Wales, the coast plain is watered by many noble streams, the largest of which are the **Clarence**, **McLeay**, **Manning**, **Hunter**, **Hawkesbury**, and **Shoalhaven**. In Victoria, the **Snowy River**, the **Mitchell**, and other smaller streams fall into the Pacific; the other rivers of the colony belong to the basin of the Indian Ocean.

2. The Australian Section of the River System of the Indian Ocean includes the **Murray**, which enters Encounter Bay through Lake Alexandrina; the **Swan**, **Murchison**, **Gascoyne**, **Ashburton**, **De Grey**, **Fitzroy**, and other rivers of Western Australia; the **Victoria** and **Daly**, in the Northern Territory; and the **Roper**, **Flinders**, **Mitchell**, and other streams which fall into the Gulf of Carpentaria.

The **MURRAY**, which drains a large portion of Queensland, the whole of the interior of New South Wales, the northern half of Victoria, and a part of South Australia, rises on the western slopes of the *Australian Alps*, about 15 miles south of *Mount Kosciusko*, and becomes navigable at Albury, about 150 miles from its source. Throughout its upper and middle course, the Murray forms the boundary between the colonies of Victoria and New South Wales; its lower course, below its junction with the Darling, is within South Australia. Its two great tributaries—the **Murrumbidgee** and the **Darling**—with their subsidiary creeks, drain the whole of New South Wales and a part of Queensland west of the Great Dividing Range. The length of the Murray is 1,300 miles, the average width of the main stream is about 240 feet, and its depth about 16 feet, but it undergoes great variation according to the season of drought or rain.

Of the numerous streams that traverse the more settled portion of Western Australia, the **Swan** alone is navigable to any extent. The **Murchison**, **Gascoyne**, **Ashburton**, **De Grey**, **Fitzroy**, and other rivers drain the northern half of Western Australia. In the Northern Territory of South Australia, the **Victoria**, **Roper**, and other rivers are navigable for considerable distances inland. The **Gregory**, **Flinders**, **Norman**, and **Mitchell** are the largest of the many streams that converge into the south-eastern portion of the Gulf of Carpentaria.

3. The largest "continental" rivers of Australia are the **Diamantina** and **Cooper's Creek** or the **Barcoo River**. Both these streams enter South Australia from the south-west of Queensland, but while Cooper's Creek enters Lake Eyre, the Diamantina dries up and disappears in the stony desert to the north of the Delta of Cooper's Creek.

**Lakes.**—Lake **Alexandrina**, through which the Murray passes immediately above its mouth, is the largest fresh-water lake in Australia. It is a shallow expanse of water, difficult to navigate. Most of the other lakes that are marked on the maps of Australia are only salt marshes, or mere surface ponds, with dry beds during the larger portion of the year. Of these, the most extensive are **Lakes Eyre**, **Torrens**, and **Gardner**, to the north of Spencer Gulf, and **Lake Amadeus**, in the interior, 270 miles north-west of Lake Eyre.

**CLIMATE.**—Generally speaking, the climate of Australia may be said to be uniformly warm and intensely dry, but exceptionally healthy, and well suited to Europeans.

So vast a continent necessarily exhibits great differences in climate, which, in fact, ranges from the tropical heat of the north to the cooler and more enjoyable climate of the south. The most densely-peopled districts of Victoria, New South Wales, South Australia, and Western Australia, have a climate resembling,

in the main, that of the countries of Southern Europe—genial and delicious in autumn, winter, and spring, and disagreeable only in summer, during the prevalence of the hot winds which now and then blow from the interior, fortunately only for very brief periods.

**Rainfall.**—All the Australian colonies suffer more or less from periodical droughts, but the total rainfall is, on the whole, greater than in England. The rains fall with great violence at particular seasons, more especially during the winter of the Southern Hemisphere, that is, from May to August. During nine months of the year there is often little or no rain, and the plains in the far interior are sometimes without rain for two or three years consecutively.

**NATURAL PRODUCTIONS.**—The mineral wealth of Australia equals that of any of the other continents; its animal and vegetable productions differ in many respects from those of the rest of the globe.

1. **PLANTS.**—Australian vegetation is of a strange and peculiar character, and is not less noticeable for the large number of distinct species, than for their dissimilarity to those of other countries.

The characteristic trees of Australia are the **eucalypti** or gum trees, and the **acacias** or wattles. There are altogether about 150 different kinds of gum trees, most of them found in Australia alone, and many of them of great value for their timber. Several of the **acacias** are also magnificent woods, and the bark of the **black wattle** is valuable for tanning. **Ferns** are numerous, particularly in the mountain gullies—one variety has fronds six feet in length. The Australian "bush" is generally an open forest country, easily traversed, and with large areas of good pasture for sheep and cattle. But the desolate "scrub" country is the dread of the explorer, while the spinifex-grass regions are most difficult and often impossible to penetrate.

All the **grains, fruits, and vegetables**, whether European or tropical, planted in the Australian soil, yield abundant crops, wherever there are sufficient moisture and suitable temperature.

Although the Australian Colonies, compared with European countries, have barely emerged from the pastoral stage, the agricultural produce is considerable, and now amounts in value to about three-fourths of the animal products.

**Wheat, maize, oats, and barley** are largely grown, the **vine** is extensively cultivated, and the **sugar-cane** and **tobacco** are grown in many of the warmer districts in the Eastern Colonies. All kinds of **fruit** are grown in each of the colonies.

2. **ANIMALS.**—The native animals of Australia are even more peculiar and anomalous than the plants.

The **Marsupialia** are the characteristic mammals of Australia. The most remarkable marsupials are the **kangaroos**, the largest of which are about 5 feet high and weigh some 200 lbs. The smaller **wallabies, hare kangaroos, and rat kangaroos**, are much more numerous. The Australian **opossums** are marsupial animals of arboreal and nocturnal habits, but quite distinct from the true opossums of America. The **koala** or native bear is a kind of sloth, not much larger than the opossum, and of similar habits. The thick-limbed and clumsy **wombat**, also a marsupial, lives on roots and burrows underground. The **bandicoot** is a small rat-like kangaroo. But the most remarkable, perhaps, of all the animals found in Australia are the **duck-billed platypus** (*Ornithorhynchus paradoxicus*) or water mole, which is a mammal, but has a bill like a duck, and lays eggs; and the echidna or **ant-eating porcupine**, which some-

what resembles the English hedgehog. The elegant **native cat**, a carnivorous marsupial, is fierce and intractable, but the **dingo** or native dog is much more formidable. The ferocious and untameable **pouched hyena**, and the **native devil**, now only found in Tasmania, were formerly also found in Australia.

The abundance and variety of bird life in Australia are remarkable, and of over 600 distinct species, less than one-twentieth are found elsewhere. **Parrots, cockatoos, and paroquets** are numerous; **eagles, falcons, hawks, and owls** abound; the **lyre-bird**, the **bower-bird**, with numerous species of **pigeons and doves**, are all famed for the beauty of their plumage; while the laughing jackass, or **great kingfisher**, and the **mocking bird**, arrest the attention of the traveller by their extraordinary cries. Among the larger birds are the **black swan**, the **brush turkeys** or mound makers, the **native companion**, a water bird somewhat like a gigantic crane in appearance, and the **emu**, a kind of ostrich, the largest of all Australian birds.

The **reptiles** of Australia include numerous varieties of snakes and lizards. Several species of **snakes**, particularly the death-adder, the black snake and the tiger snake, are venomous, and some of the **lizards**, which are very common, attain a large size. Several species of **alligators** infest the rivers of Queensland and Northern Australia.

There are over a hundred different species of edible sea-fish, of which the **schnapper**, which sometimes attains the weight of 30 lbs., is the most valuable and abundant.

In the insect world, Australia occupies a foremost position, whether as regards number, peculiarity, or activity, the latter quality being unpleasantly conspicuous in the **mosquito**.

**Introduced Animals.**—All the domestic animals of Europe have been introduced into Australia, and immense flocks of **sheep** and countless herds of **cattle**, besides a very large number of **horses**, are now reared on the vast pastures which, not so long ago, only 'carried' kangaroos and wallabies. **Camels** have also been successfully introduced into South Australia.

**Noxious Animals.**—The **dingo** or native dog is not the only noxious animal; **kangaroos, wallabies, and rabbits**, which consume the pasturage, are even greater pests. The rabbits are the greatest pests in many parts of Australia, and over a million sterling has been spent in their destruction. Large sums have also been paid for the destruction of kangaroos, wallabies, kangaroo rats, hares, and wild pigs.

**3. MINERALS.**—Australia abounds in mineral wealth, and its marvellous progress and prosperity are largely due to the enormously rich **gold mines** of Victoria, Queensland, and New South Wales, the productive **copper mines** of South Australia, the valuable coalfields and rich **silver mines** of New South Wales, the famous **tin mines** of Tasmania, and to extensive deposits of other useful and valuable metals and minerals.

**Gold** may be said to be the "creator" of Australia, for the discovery of fabulously rich goldfields attracted a large and energetic population, and advanced the progress of the country hundred of years at a bound.<sup>1</sup> The richest **gold fields** are those of Victoria, but the gold mines of New South Wales and

1. In 1823, the assistant-surveyor of New South Wales found particles of gold in the sands of the Fish River, about 15 miles from Bathurst, and, in 1833, Count Strzelecki found gold in the Vale of Clwyd, and, two years later, the noble metal

was also discovered by the Rev. W. B. Clarke in the Macquarie Valley, but it was not until 1851 that payable deposits were proved to exist in New South Wales and Victoria.

Queensland have produced a vast amount of the precious metal, which is also found in South Australia, Tasmania, and Western Australia.<sup>1</sup>

Metals other than gold are also found. The silver mines of the Barrier Ranges and Broken Hill districts of New South Wales are among the richest in the world. Lead is found in all the colonies, but is only worked when combined with silver in paying proportions. Copper also exists in all the colonies, and has been mined extensively in South Australia, New South Wales, and Queensland. The richest deposits of tin are in Tasmania—*Mount Bischoff* in the north-west of the island is a mass of tin ore, yielding 80 per cent. of the pure metal. But nearly twice as much tin is produced in New South Wales, and considerably more in Queensland than in Tasmania. There are large deposits of excellent iron ore in almost all the colonies, but none of them are worked, except in New South Wales.

Mineral fuels are abundantly distributed throughout Australia, and the coalfields of New South Wales are among the most extensive in the world. Coal is also found in Queensland, Tasmania, and Victoria.<sup>2</sup>

**INHABITANTS.**—The people of Australia are mainly settlers from the British Isles, or their descendants, and now number over 3 millions. There are also about 50,000 *Chinese*, 10,000 *Polynesians*, 1,000 *Malays*, and perhaps 100,000 *Aborigines*.

The Australian *Aborigines* are among the most degraded members of the human race. A few roots and berries, with shell-fish, insects, grubs, and other repulsive objects, form the food resources of the Australian savage, who will eat almost anything—lizards, snakes, and frogs being especially esteemed, while most of the wilder tribes are also cannibals, not from necessity, but from choice. Some of them are occasionally employed as shepherds by the colonists, but they dislike continuous work, and soon return to the bush. There are still a few hundreds of them in Victoria, and they are rather more numerous in New South Wales, South Australia, and Western Australia, but most of them are confined to the thinly settled parts of Queensland, and even there, as elsewhere, they are gradually dying out, although it will probably be a long time before they are entirely extinct. In Tasmania, the last of the aboriginal race died in 1876. The *Chinese*, who number about 50,000, are most numerous on the gold-fields, principally in Northern Queensland, where the *Polynesians* and *Malays* are also mostly found, having been introduced as labourers on the sugar or cotton plantations.

There is a considerable *German* element in Australia, especially in South Australia and Queensland, and there are several thousand *Scandinavian*, *American*, and *French* settlers in the various colonies.

With these insignificant exceptions, the Australian people are British or of British origin. The native-born Australians now largely outnumber the settlers from the United Kingdom and all other countries, and the increase of the Australian-born section of the population is much greater than the increase due to immigration, except in Queensland and, perhaps, in Western Australia.

1. Large 'nuggets,' or masses of pure gold, have at various times been unearthed in Victoria and New South Wales. The "Welcome Stranger," found in 1869 in Victoria, weighed 190 lbs.: the "Welcome" nugget, found in 1868, weighed 184 lbs. 9 oz. 16 dwts., and sold for £10,500. In New South Wales, a mass of gold weighing 109 lbs. was found on the Turon in 1851.

2. The total value of the metals and minerals produced in Australia, between 1860 and 1890, amounted to about 450 millions sterling, of which

300 millions represent the value of gold, and of this amount considerably more than two-thirds were contributed by Victoria. About 30 million pounds' worth of copper, and 20 million pounds' worth of tin, and not much less than 25 million pounds' worth of coal, with several million pounds' worth of silver and silver lead ore, have been won in the Australian colonies during the last 40 years, in addition to the gold, an average yearly production of over 11 millions sterling.

## EXAMINATION QUESTIONS.

1. What continent and islands does Oceania embrace? What is the general name given to the British Colonies and other possessions in Oceania?
2. Name the five colonies of Australia. Where are Tasmania, New Zealand, and Fiji?
3. Compare Australasia and Great Britain as regards extent. When was Australia first discovered? Where was the first settlement made? What steps have been taken towards the federation of the Australasian Colonies?
4. In what particular, as to situation, is Australia distinguished from each of the other continents?
5. By what oceans is Australia bounded on the east, west, and south?
6. State the area of Australia.
7. Name the principal inlets, straits, and capes of Australia.
8. Which portion of the coasts of Australia exhibits the most continuous chain of high grounds?
9. How are the different parts of this cordillera named?
10. Point on the map to the Australian Alps. What height do they reach?
11. In what other parts of the Australian continent, besides the eastern coast, do ranges of high ground occur?
12. Name the most considerable among the rivers of Australia, and trace out its course on the map. In what mountains does it rise?
13. Name some of the rivers on the eastern, western, and north-western coasts of Australia.
14. What is the chief characteristic of the Australian rivers?
15. Name the largest lake of Australia, and point it out on the map.
16. What is the prevailing characteristic of the climate of Australia? With what countries of Europe may the settled portions of Australia be compared, in regard to temperature?
17. Give some particulars concerning the native vegetation of the Australian continent.
18. To what order of mammalia do the greater number of the animals of Australia belong? In what other part of the world are members of this order found?
19. Name some of the quadrupeds, among the domesticated animals of other regions, that are absent from the native zoology of Australia.
20. Say what you know concerning the mineral wealth of Australia. In which parts of it are gold and silver found? In which copper? In which coal?
21. To what race and nation does the chief part of the present population of Australia belong?
22. Say what you know concerning the native population of this division of the globe.

## NEW SOUTH WALES.

NEW SOUTH WALES, the "mother colony" of Australia, extends along the eastern coast of the continent from **Point Danger** on the north to **Cape Howe** on the south, a distance of 700 miles, and stretches inland for a distance of from 500 to 850 miles.<sup>1</sup>

New South Wales is bounded on the *north* by **Queensland**, on the *west* by **South Australia**, on the *south* by **Victoria**, and on the *east* by the **Pacific Ocean**. It has an area of 309,175 square miles, or  $2\frac{1}{2}$  times that of Great Britain and Ireland, and, as regards population, it has almost outstripped Victoria, although the number of inhabitants—nearly  $1\frac{1}{2}$  millions—is very small compared to the extent of the country they occupy, there being on an average scarcely 4 persons to the square mile, or less than 125th part of the density in England and Wales.

The coast-line of New South Wales is broken up by numerous bays and inlets, many of which afford ample shelter and safe anchorage, and some of them, such as **Port Jackson**, **Broken Bay**, and **Port Stephens**, are among the finest natural harbours in the world.

**NATURAL FEATURES.**—Physically, the colony presents considerable diversity. A comparatively narrow coast plain extends inland to the coast ranges, that generally form the seaward edge of an elevated tableland (upon which lie the irregular ranges of the Great Dividing Chain), and which slopes westward into the great plains of the interior.

1. **Mountains.**—A series of mountain chains, known as the **Great Dividing Range**, runs parallel to the coast at a varying distance of from 30 to 100 miles. East of it are smaller mountain chains—the **Coast Ranges**. There are also several hill ranges and isolated hills in the interior.<sup>2</sup>

1. **Norfolk Island**, **Pitcairn Island**, and **Lord Howe Island** are also attached to New South Wales.

2. The portion of the Great Dividing Range within New South Wales consists of seven main

ranges, the best known of which are the famous **Blue Mountains** and the **Munro Range** in the Australian Alps. The loftiest points are **Mount Townsend**, 7,256 feet, and **Mount Kosciusko**, 7,171 feet.

2. **Rivers.**—The Great Dividing Range forms the main watershed of the colony, and contains the sources of almost all the rivers. The Hawkesbury and other rivers drain the comparatively short eastern slope into the Pacific; the Darling, the Lachlan, the Murrumbidgee, and other streams drain the long western slope into the Murray, which itself flows along the southern frontier of the colony for over a thousand miles.

The rivers of the eastern slope include the Hawkesbury or Nepean, 330 miles in length; the Hunter (300 m.); the Shoalhaven (260 m.); the Clarence (240 m.); the Macleay (190 m.); the Richmond (120 m.); and the Manning (100 m.).

The rivers of the western slope, with the exception of a few 'continental' creeks in the extreme north-west, belong to the basin of the MURRAY. The most westerly of these is the Darling, which joins the Murray at Wentworth, after a course of over 1,000 miles. The Lachlan (700 m.) is the chief tributary of the Murrumbidgee—the second great affluent of the Murray.

3. **Lakes.**—The lakes of New South Wales are few in number and small in size. The largest mountain lakes are Lake George and Lake Bathurst. The largest coastal lakes are Lake Macquarie, Lake Illawarra, and Brisbane Water.

**CLIMATE.**—The climate of New South Wales is, on the whole, warm and dry, and everywhere extremely healthy.

The rainfall is ample and sometimes excessive on the coast plain, moderate on the high lands, and scanty on the great western plains. It averages from 50 inches at Sydney to 20 inches on the uplands and less on the plains.

**PRODUCTIONS.**—The *indigenous trees, shrubs, and plants*<sup>1</sup> are of less value than the cultivated cereals, fruits, and vegetables; the *native animals* are absolutely valueless compared with the domestic animals now reared in millions on the rich pastures; while the mineral resources of the colony are practically inexhaustible.

No country has been favoured by nature with a greater variety and abundance of trees, yielding strong, beautiful, and durable timbers, and the mineral wealth of the colony is very large. Much gold has been, and still is, obtained; the *silver* mines are very rich, while the *coalfields* are the most extensive and accessible in the Southern Hemisphere, and must ultimately make New South Wales the wealthiest and most important of all the Australian colonies.

**INDUSTRIES.**—More than *one-fourth* of the adult male population of New South Wales are engaged in agriculture, *one-fourteenth* in pastoral pursuits, *one-eighth* in manufactures, *one-thirteenth* in mining, and *one-twelfth* in trade and commerce; the rest are chiefly engaged in professional pursuits, in transport by land and sea, or as skilled or unskilled labourers in building or construction.

1. The pastoral industry, the first in order of time, is still the first in order of value: The staple product of the colony is wool, the annual clip amounting to about 230 million lbs. There are now over 56 million sheep in the colony.

2. **Agriculture.**—Only about one-half per cent. of the area of the colony is under cultivation. The principal crops grown at present are wheat, maize, oats, barley, potatoes, sugar-cane, tobacco, grapes, oranges, and other fruits.

1. Except, of course, the native grasses and natural pasturage for so many millions of shrubs, such as the salt bush, which form the sheep.

**3. Mining.**—Mining, especially for **coal, silver,**<sup>1</sup> and **gold,** is an important industry, and about one-ninth of the population is dependent upon the yield of the mines.

**4. Manufactures** of various kinds support about one-sixth of the whole population of the colony. The most important are wool-washing establishments, metal-works, printing-works, &c.

**5. Commerce.**—The trade of New South Wales has increased from less than half a million in 1825, and 20 millions in 1865, to over 44½ millions in 1890. The foreign trade of this colony is larger than that of any of the other colonies of Australasia, both in absolute amount and in proportion to the population. It is, in fact, exceeded in value by that of no other British colony or dependency, India and Canada alone excepted. About 88 per cent. of the total trade is carried on with **Great Britain** and the other **Australasian Colonies** and the **British Possessions** in other parts of the world—the rest is chiefly with the **United States, Belgium, France, Germany, and China (Hong-Kong).**<sup>2</sup>

**Imports.**—The imports consist principally of *articles of food and drink, clothing, textile fabrics, iron and metal goods,* and other *manufactured articles, sugar, tea, &c.* Annual value, 23 millions sterling.

**Exports.**—The main articles of export are *wool, gold (in coin), coal, live stock, tin, silver, copper, skins,* and *tallow.* Annual value, 22 millions sterling.

**Ports.**—The chief ports are **Sydney, Newcastle, Wollongong, and Eden**. The bulk of the foreign trade of the colony passes through **SYDNEY**, which ranks next to Melbourne among Australian ports.

**Communications.**—Internal communication is facilitated by a network of over 24,000 miles of **roads** and over 3,000 miles of **railways**, together with several thousand miles of **navigable waterways**.

**GOVERNMENT.**—The government of New South Wales is vested in a **Governor**, who represents the Queen, and a Parliament of two Houses—the **Legislative Council** and the **Legislative Assembly**.

The Revenue, in 1890, amounted to nearly 9½ millions sterling, and the Expenditure to a little over 9½ millions, while the Public Debt was nearly 48½ millions, or £43 per head of the population.

**Education.**—Education is under State control, and is compulsory, and free for poor children. The University of Sydney was founded in 1858.

**DIVISIONS and TOWNS.**—The colony is divided into 13 **Pastoral Districts**, and also into 141 **Counties**. The chief towns are **Sydney and Newcastle**, on the coast; **Bathurst**, on the tableland; and **Broken Hill, Bourke, and Albury**, in the interior.

**SYDNEY** (400), the capital of New South Wales and the oldest city in all Australia, is most picturesquely situated on the southern shore of Port Jackson—a magnificent natural harbour, absolutely unrivalled for convenience of entrance, depth of water, and facilities for shipping. The foreign commerce of Sydney is very extensive, and is surpassed among Australasian ports only by that of Melbourne, while, in the value of its trade, it is exceeded only by London, Liverpool, and Hull among British ports. **Parramatta** (12), famous for its oranges and fruit gardens, is about 14 miles west of Sydney.

1. Silver-mining has, since the discovery of the rich silver fields of the *Barrier Ranges* and the *Broken Hill* districts in 1883, become of great importance, and the annual export of silver and silver-lead ore amounts to over 2 millions sterling. **BROKEN HILL** and **SILVERTON**, the centres

of the silver region, are connected by rail with Port Pirie and Adelaide.

2. Nearly nine-tenths of the foreign trade of the colony is carried on with **Great Britain** and the **British Possessions**, and the direct trade with **Great Britain** alone is even larger than the intercolonial trade.

The chief towns on the coast, besides Sydney, are **Newcastle** (53), the great port of the northern coalfields, **Wollongong**, the port of the southern coalfield, **Ballina**, at the mouth of the Richmond River, and **Eden**, on Twofold Bay. Newcastle, at the mouth of the Hunter River, is the second largest town in the colony, and is important as the chief emporium of the coal trade. The harbour is protected by a breakwater.<sup>1</sup>

The chief towns on the tableland are **Bathurst**, on the Macquarie River, **Tamworth**, **Mudgee**, and **Goulburn**. Bathurst, the centre of the principal wheat-growing district in the colony, is, with the exception of Broken Hill, the largest town in the colony to the west of the Blue Mountains.

The largest towns on the plains are **Albury** (3), on the Murray, **Wagga Wagga** and **Hay**, on the Murrumbidgee, **Deniliquin**, in the Riverine District of the Murray, **Bourke** and **Wentworth**, on the Darling, and **Broken Hill** (25) and **Silverton**, in the silver-mining region to the west of the Darling. Albury, famous for its wines and as the frontier town where the railway from Sydney is connected with the main line from Melbourne, is situated on the Murray, at the head of navigation, about 150 miles from its source, and about 1,000 miles from the outlet of this great river in Lake Alexandrina. Between the Darling and the South Australian border lies the rich silver-mining district of the Barrier Range. Here **Broken Hill**, 800 miles west of Sydney, and 300 miles north-east of Adelaide, and **Silverton**, 17 miles north-west of Broken Hill, are the chief centres.

#### QUESTIONS ON NEW SOUTH WALES.

1. What is the geographical position of New South Wales? What colonies bound it on the north, west, and south?
2. Name the principal inlets on the coast of New South Wales.
3. Describe briefly the mountains, and name the chief rivers of New South Wales.
4. Point on the map to the largest mountain and coastal lakes of the colony.
5. Describe the climate, and mention some of the principal productions of the colony.

6. What are the chief industries? What is the staple product? Name the chief ports.
7. What is the present form of government? How is the colony divided?
8. Name the capital of New South Wales. In what year was it founded? On what inlet does it stand?
9. In what part of the colony are Newcastle and Bathurst situated?
10. Name any other important towns on the coast or in the interior.

#### VICTORIA.

The "Gold Colony" of VICTORIA, called by the early explorers **Australia Felix**, from its beauty and fertility, is the smallest in area, but the foremost in wealth and enterprise, of the Australian Colonies. It forms the south-eastern portion of the continent, of which it occupies one thirty-fourth part.

Victoria is separated from **New South Wales** (of which, from 1835 to 1851, it formed a part under the name of Port Phillip) by the **River Murray** and an imaginary line running in a south-easterly direction from its source in Forest Hill in the Australian Alps to Cape Howe, while the 141° East longitude divides it from **South Australia**, and Bass Strait from **Tasmania**.

**BOUNDARIES.**—Victoria is bounded on the *north* and *north-east* by New South Wales; on the *west* by South Australia; on the *south* by the Southern Ocean and Bass Strait; and on the *south-east* by the Pacific Ocean.

1. On the Hunter River, 20 miles above Newcastle, is **Maitland**, the centre of the wheat-growing district of New South Wales.



The greatest length of the colony, from east to west, is about 420 miles, and the greatest breadth about 250 miles, while its area of nearly 88,000 square miles is slightly less than that of Great Britain.

But although Victoria is the smallest in area, it is the most densely peopled of all the Australian colonies. The actual populations of New South Wales and Victoria are nearly the same—both being over a million—but the density of population in the smaller colony is, of course, much greater than in the larger one, being, in Victoria, about 13, and, in New South Wales, only 4 to the square mile.

**COASTS.**—The coast line of Victoria is about 700 miles in length, and is indented by several inlets, the largest and most important of which is **Port Phillip Bay**.

Other considerable inlets are **Western Port**, **Waratah Bay**, and **Corner Inlet**, to the east, and **Portland Bay** and **Discovery Bay** to the west, of **Port Phillip Bay**.

The largest islands are **French Island** and **Phillip Island**, in **Western Port**, and **Snake Island**, off **Corner Inlet**.

The principal headlands are **Cape Howe**, the easternmost point, **Wilson Promontory**, the southernmost point of Victoria as well as of the whole continent; and **Point Nepean** and **Point Lonsdale**, which form the "heads" at the entrance to **Port Phillip Bay**.

**MOUNTAINS.**—A chain of mountains, the southern part of the **Great Dividing Range** of Eastern Australia, extends across the colony from east to west, at a distance of from 60 to 70 miles from the coast.

The eastern part of the Cordillera is known as the **Australian Alps**, and the range terminates to the west in the **Pyrenees** and the **Gramplians**. In these ranges, about 80 peaks rise over 4,000 feet, one-half of them over 5,000, and at least six over 6,000 feet—the loftiest, *Mount Bogong*, is 6,508 feet above the sea—but the average elevation of the Victorian mountains is only about 3,000 feet.<sup>1</sup>

**RIVERS.**—The **Australian Alps** and the western ranges form the watershed between the **Murray River** system on the north and the basins of the numerous coastal streams on the south.

Into the **Murray**, which forms the northern frontier of the colony for 980 miles, flow the **Goulburn**, 345 miles in length, the **Loddon** (225 m.), the **Campaspe** (160 m.), the **Ovens** (140 m.), and the **Mitta Mitta** (175 m.). The **Avoca** (163 m.) and the **Wimmera** (228 m.) rarely reach the **Murray**, generally terminating in salt lakes or marshes.

The chief coastal rivers are the **Snowy River** (300 m., only 120 miles of which, however, are within Victoria), the **Latrobe** (135 m.), the **Yarra Yarra** (160 m.), the **Hopkins** (155 m.), and the **Glennelg** (280 m.).

**Lakes.**—There are numerous salt and fresh water lakes, but most of them are shallow, and many are dry during the summer months. The largest are **Lake Corangamite** (90 square miles), **Lake Colac** (10 square miles), and the **Gippaland Lakes**—*Lakes Wellington, Victoria, King, and Reeves*.

1. Other lofty peaks in Victoria are *Mount Featherston*, 6,308 feet; *Mount Hotham*, 6,100 feet; *Mount Cobberas*, 6,025 feet; and *Mount Pilot*, 6,020 feet.

**CLIMATE.**—The climate of Victoria is, on the whole, warm, dry, and distinctly healthy.

Victoria is not so hot as New South Wales or Queensland, still the temperature sometimes rises in January above 100° F. in the shade, and rarely falls in July, the coldest month, below the freezing-point. The rainfall averages 25 or 26 inches, but the air is so dry and the soil such, that moisture is absorbed much more quickly than in England.

**PRODUCTIONS.**—A rich soil, a warm and genial climate, and, in most parts, sufficient moisture, combine to give Victoria a high position in respect of her vegetable productions; the Victorian merino wool is unsurpassed in length of staple, softness, and lustre; while the colony is justly famed for its immense mineral wealth.

1. **Pastoral Pursuits.**—The pastoral industry is second to none in importance, and wool and other animal products and live stock amount to considerably more than half the total value of the exports of the colony.

2. **Agriculture** has made much progress of late years, and is becoming an important industry, not only along the coast, but also in the region north of the Dividing Range, although the rainfall there is so scanty and precarious that it has to be supplemented by irrigation.

Wheat of the finest quality, with oats, barley, maize, root crops, hay, and English grasses, are extensively cultivated, while both soil and climate are peculiarly adapted for the growth of the vine, the olive, and all kinds of fruit.

3. **Mining for gold** was, at one time, the most important industry, and it is to its enormously rich goldfields that Victoria owes its extraordinarily rapid progress. Victoria is *par excellence* the "Gold Colony," and fully one-third of its area is occupied by gold-bearing rocks. Since their discovery in 1851, the goldfields of Victoria have yielded over 56 million ozs. of the precious metal, valued at 225 millions sterling, or two-thirds of the gold raised in all Australasia.<sup>1</sup>

4. **Manufacturing Industry** has made much progress in Victoria, but the products are almost entirely for home use.

**COMMERCE.**—Nearly half the trade is with England—the rest is principally with the neighbouring colonies.

The imports, in spite of heavy duties on most of the important articles, greatly exceed the exports, four-fifths of which consist of wool, gold, wheat and flour, and live animals. Annual value, 36 millions sterling—imports, 23 millions; exports, 13 millions.<sup>2</sup>

**Ports.**—Melbourne, Geelong, and Portland are the chief ports.

**Communications.**—All the railways in Victoria are the property of the State. Over 2,700 miles are now open for traffic.

**GOVERNMENT.**—Victoria possesses responsible government. The Governor is appointed by the Crown, and there are two Houses of Parliament.

1. In 1853, the gold produced reached the enormous amount of 3,150,000 ozs., but in recent years the output has averaged 500,000 to 700,000 ozs. In 1890, it was only 230,500 ozs. The gold-mining population numbers about 25,000, of whom 8,000 are Chinese.

2. The direct trade with the United Kingdom is very large, the imports therefrom amounting to about 9 millions sterling, and the exports thereto to between 5 and 6 millions.

The Revenue, in 1891, amounted to 8½ millions sterling, the Expenditure to 9½ millions. The Public Debt is over 43½ millions, nearly the whole of which has been incurred in the construction of railways, water-works, school buildings, and other public works.

Education is amply provided for in the numerous schools and several colleges affiliated to the university of Melbourne. There is no State Church in Victoria.

**DIVISIONS and TOWNS.**—Victoria is divided into 4 districts<sup>1</sup> and 37 counties. More than one half of the people of Victoria live in towns. Of the 60 cities, towns, and boroughs, the largest are Melbourne, Ballarat, Bendigo, and Geelong.

**MELBOURNE**, the capital of Victoria, and the most important commercial centre in the Southern Hemisphere, is situated on the Yarra, not far from the shores of Port Phillip Bay, on which stand its lovely suburbs of *St. Kilda* and *Brighton*, with *Port Melbourne* (formerly called Sandridge), its port, and *Williamstown*, its outpost. Including its suburbs, Melbourne now has a population of nearly half a million.

Other noteworthy towns, besides Melbourne, are Geelong, Ballarat, Ararat, Stawell, and Serviceton, on the *Western Railway*; Castlemaine, Bendigo, and Echuca, on the *Northern Railway*; Wodonga, the terminus of the *North-Eastern Railway*, and Beechworth, on a branch of the same line; and Sale and Bairnsdale, on the *Eastern Railway*. On the coast, to the west of Port Phillip, are Warrnambool, Port Fairy or Belfast, and Portland.

Geelong (20), one of the oldest towns in Victoria, is noted as a wool port and for its "tweed" manufacture. Ballarat (37), is one of the most famous gold-mining towns in the world. Bendigo (38), is another gold-mining town, famous in the early annals of the colony.

#### EXAMINATION QUESTIONS ON VICTORIA.

1. Describe the boundaries of Victoria. By what name was this portion of Australia known prior to 1860? Whence was this name derived? Name the headlands on either side of this bay.

2. Name the principal mountains, rivers, and lakes of Victoria, and describe briefly its climate and productions.

3. To what two products does Victoria chiefly owe its great wealth? When was gold first discovered in the colony?

4. What are the chief exports and imports? With what country is most of the trade carried on? Name the chief ports.

5. Under what form of government is Victoria?

6. Describe briefly the capital of Victoria, and mention other noteworthy inland towns.

7. Name three ports on the south-western coast of Victoria.

8. For what are Geelong, Ballarat, and Bendigo noted?

#### QUEENSLAND.

QUEENSLAND is another "New England," growing daily in wealth and population under the bright sun and cloudless sky of Australia. This immense colony occupies the whole of the north-eastern portion of the continent, and is bounded on the east by the Pacific Ocean, on the north by Torres Strait and the Gulf of Carpentaria, on the west by South Australia, and on the south by New South Wales.

The length of the colony, from north to south, is about 1,300 miles, the breadth 800 miles, and the coast-line 2,550 miles. Its area is 668,000 square miles, or considerably more than one-fourth of the continent. But the population of this vast colony, in 1891, was only 387,960, or about one person to every 2 square miles of area.

1. The four districts are *Gippsland*, in the south-east; the *Murray*, in the north-east; *Wimmera*, in the north-west; and *Loddon*, in the north-central part of the colony.

**COASTS.**—The extensive seaboard of Queensland includes the whole of the eastern coast from **Point Danger** to **Cape York**—the northernmost point of the continent—and also the eastern, and part of the southern, shores of the **Gulf of Carpentaria**.

Along the eastern coast, at a distance of from 10 to 150 miles, the vast natural break water of the **Great Barrier Reef** makes sea-voyaging a pleasure for more than 1,200 miles. There are numerous openings in the reefs through which vessels may, in stormy weather, pass from the open ocean to the smooth water between the reefs and the coast, but there is only one really safe passage for ships. The long voyage, from **Torres Strait** as far south as **Cape Capricorn**, is entirely within the sheltered channel thus formed.

Of the numerous bays and inlets by which the coasts of Queensland are indented, the best known is **Moreton Bay**, in the extreme south-east. The harbour of **Thursday Island**, an important port of call, is in **Torres Strait**.

The largest islands are **Stradbroke**, **Moreton**, and **Fraser** or **Great Sandy Island**, on the eastern coast; and the **Wellesley Islands** in the **Gulf of Carpentaria**.

**NATURAL FEATURES.**—The main features in the relief of Queensland, as of **New South Wales**, are (1) the coastlands, (2) the tablelands and mountains, and (3) the vast interior plains.

1. **Mountains.**—The **Coast Range** extends, under various names, from **York Peninsula** in the north to within a few miles of **Brisbane**. The **Main Range**, which forms the northern portion of the long cordillera of **Eastern Australia**, runs inland of the **Coast Range**, and may be said to extend from the **Macpherson Range**, on the borders of **New South Wales**, to **Cape York**. The average elevation of these mountains is only about 2,000 feet; no summits in the **Main Range** exceed 5,000 feet.<sup>1</sup>

2. **Rivers.**—The rivers of Queensland belong to four distinct systems: (1) those that flow eastward into the **Pacific**; (2) those that form the headwaters of the **Darling**, and thus belong to the basin of the **Murray**; (3) the streams that flow southwards, and many of those flowing westward from the **Great Dividing Range**, and are either lost in the sand or ultimately fall into the salt lakes of **South Australia**; and (4) those that flow northward into the **Gulf of Carpentaria**.

Of the numerous rivers which flow eastward into the **Pacific**, the principal are the **Brisbane**, the **Mary**, the **Burnett**, the **Fitroy**, and the **Burdekin**.

In the interior, the **Warrego**, the **Condamine** or **Balonne**, and the **Macintyre**, flow into the **Darling River**. Further west, the **Victoria** or **Barcoo** flows, under the name of **Cooper's Creek**, into **Lake Eyre**, while the **Diamantina** loses itself in the stony desert to the north-east of that lake.

To the tropical basin of the **Gulf of Carpentaria** belong the **Gregory**, **Flinders**, **Norman**, **Gilbert**, **Mitchell**, and **Batavia**.

**CLIMATE.**—Although the northern half of Queensland is within the **Tropics**, the heat is less oppressive than it is further south, while hot winds and sudden changes of temperature are unknown. "During a large part of the year, the weather is fine, the sky cloudless, and the air dry and exhilarating."

1. In the **Coast Range**, the highest points are | **Range**, and **Mount Dalrymple**, 4,300 feet, in the **Wooroomooran**, 5,400 feet, in the **Bellenden Ker** | **Maackay Range**.

There are, of course, great varieties of climate, but it may be said, generally, that the seaboard districts are hot and moist, while the interior plains are hot and dry, and that frost and cold winds are known only on the elevated uplands in the south and west. The rainfall on the coastlands (and especially in the north) is, on the whole, very heavy, and in some parts excessive, frequently amounting in the south part of Cook District to over 160 inches in the year. But in the western districts generally, the rains are scanty and irregular, while severe droughts are not unfrequent.

**PRODUCTIONS.**—The chief commercial products of Queensland are *wool, gold, sugar, cattle, horses, sheep, tin, hides, and skins*, and the principal industries are connected with the production of these commodities.

**INDUSTRIES.**—The pastoral industry and mining are the chief pursuits in Queensland, and *wool* and *gold* are the staple products of the colony.<sup>1</sup>

1. **Agriculture.**—Agriculture is making steady progress, but only about a quarter of a million acres are as yet under cultivation. *Maize* and the *sugar-cane* are the chief objects of culture, but *wheat* and *rice, potatoes, bananas, pine-apples, oranges, grapes*, and other *fruits* are also grown.

2. **Mining.**—Queensland is rich in minerals of all kinds, and mining, chiefly for *gold*, is the leading industry in many parts of the colony. Considerable quantities of *copper, tin, and coal* are also produced, and other minerals and metals are found.

3. **Commerce.**—The commerce of Queensland is chiefly with the other *Australian Colonies*, and, next to them, with the *United Kingdom*. Annual value, over 13½ millions sterling—Imports, 5 millions; exports, 8½ millions.<sup>2</sup>

4. **Ports.**—All the larger towns of Queensland are seaports, but almost all the foreign trade is centred in the four ports of *Brisbane, Rockhampton, Townsville, and Maryborough*.

5. **Railways.**—From each of the more important ports a railway has been constructed, running, with one or two exceptions, almost due west into the interior. Over 2,000 miles are now open for traffic, and about 500 miles are in course of construction.

**GOVERNMENT.**—The government of Queensland is vested in a *Governor*, aided by an *Executive Council*, and a *Parliament* of two Houses—the *Legislative Council* and the *Legislative Assembly*.

The *Revenue*, in 1890, was 3½ millions sterling, and the *Expenditure*, about 3½ millions sterling; the *Public Debt*, incurred on account of immigration, railways, telegraphs, roads, bridges, and other remunerative public works, amounts to over 28 millions.

Education is free, secular, and compulsory. As in the other Australasian colonies, there is no State Church.

**DIVISIONS and TOWNS.**—Queensland is divided into 12 large districts, some of which, and portions of others, are subdivided into

1. The pearl fishery in Torres Strait (at Thursday Island, Prince of Wales Island, Somerset, &c.), and the *bêche de mer* fishery carried on at the Barrier Reef, Murray Island, &c., are both important industries.

2. The principal exports, the produce and

manufacture of the colony, are *gold* and *wool*—each to the value of about 3½ millions a year—*raw* and *refined sugar, hides and skins, tin, silver-lead, copper, preserved meats, tallow, pearl shells*—from which *mother-of-pearl* is made—*bêche de mer, and oysters*.

counties. All the larger towns are in the eastern or Pacific division of the colony; there are few towns, and none of any considerable size, in the western districts.

Only one town—**BRISBANE**—has above 50,000 inhabitants. Five other towns—**Rockhampton**, **Maryborough**, **Gympie**, **Ipswich**, and **Townsville**—have between 10,000 and 15,000 inhabitants. Only a few of the western towns have a population of more than 1,000.

**Brisbane** (52), the capital of the colony and the seat of government, stands on the Brisbane River, about 25 miles above its outlet into Moreton Bay. The river is navigable for vessels drawing over 21 feet, and the trade with England and the other Australasian colonies is very large. **Ipswich** (10), which lies 24 miles west of Brisbane, is the centre of the productive coal mines in the basin of the Bremer River. There are rich gold mines at **Gympie**. **Maryborough** is an important port on the Mary River, 25 miles above its mouth. The Port Curtis District is chiefly noted for its rich gold mines, among them the famous **Mount Morgan** mine, which lies about 28 miles south-west of **Rockhampton**, the great gold and wool port on the Fitzroy River, 40 miles above its mouth. The Kennedy District is also famous for its rich goldfields. **Charters Towers**, **Ravenswood**, and **Cape River** are the chief gold-mining centres. **Mackay** is the centre of one of the largest sugar-producing districts in the colony. **Townsville** is an important port on Cleveland Bay. **Cooktown** is a rising port on the northern coast, about 1,000 miles north-west of Brisbane.

In the interior, the principal places are **Roma**, a flourishing pastoral centre on the *Western Railway*; **Cloncurry** and **Croydon**, two important mining centres; and **Normanton**, the chief port of the Gulf region, at the head of navigation on the Norman River.

#### QUESTIONS ON QUEENSLAND.

1. What colony lies to the north of New South Wales? Point out its boundaries on the map.
2. Give some idea of its extent. What is its population?
3. Name the chief headlands, and the principal inlets and islands, on the coast of Queensland.
4. What are the main features in the relief of Queensland? Name the chief mountain ranges and the principal rivers.
5. What characterizes the climate of Queensland?
6. What are the commercial products of the colony? What are the leading pursuits? Name the two staple products. Point on the map to the four largest ports of Queensland.
7. Where are the pearl and the *bêche-de-mer* fisheries carried on?
8. What is the form of Government? How is the colony at present divided?
9. Describe the capital of Queensland, and name other important towns on the coast and in the interior.

#### SOUTH AUSTRALIA.

**SOUTH AUSTRALIA**<sup>1</sup> is, next to Western Australia, the largest colony on the continent, across which it extends from the shores of the Southern Ocean to the Gulf of Carpentaria and the Arafura Sea.

The colony is bounded on the *north* by the Gulf of Carpentaria and the *Arafura Sea*; on the *south*, by the Southern Ocean; on the *east*, by Victoria, New South Wales, and Queensland; and on the *west*, by Western Australia.

<sup>1</sup> South Australia Proper extends from the Southern Ocean to the 26th parallel of South latitude. The Northern Territory extends from the 26th parallel to the shores of the Indian Ocean. This colony and its Northern Territory

are separated from Western Australia by the 139th meridian of East longitude. On the east, the boundary is marked by the 141st meridian, up to South latitude 26°, and thence north by the 138th meridian.

**Extent.**—This vast territory measures over 1,800 miles from sea to sea, and has a total area of over 900,000 square miles, nearly one-third of the continent, and no less than 10 times the size of Great Britain, or 15 times the size of England and Wales. The entire population, however, in 1891, only numbered 319,145, an average of one person to every 3 square miles.

**COASTS.**—South Australia has a deeply indented coast-line of about 2,000 miles in length.

The principal *inlets* on the northern coast are **Queen's Channel**, **Port Darwin**, **Van Diemen Gulf**, and **Arnhem Bay**; with **Blue Mud Bay** and **Limmen Bight** in the Gulf of Carpentaria.

The southern coast is indented by the much larger inlets of **Spencer Gulf** and **St. Vincent's Gulf**, in and on either side of which are numerous smaller openings. The Gulf of St. Vincent communicates with the ocean by two channels—*Investigator Strait* and *Backstairs Passage*. The **Coorong** is a long arm of the sea on the eastern side of **Encounter Bay**, from which it is divided by a narrow tongue of land.

The largest *islands* belonging to South Australia are **Kangaroo Island**, 85 miles long and about 30 miles broad, at the mouth of the Gulf of St. Vincent, on the south coast, and **Melville** and **Bathurst Islands**, off the northern coast, with **Groote Eylandt**, in the Gulf of Carpentaria.

The principal *headlands* are **Cape Jarvis**, **Cape Spencer**, and **Cape Catastrophe**, on the south coast; and, in the Northern Territory, **Cape Van Diemen**, on Melville Island.

**NATURAL FEATURES.**—Though South Australia has no mountain ranges comparable to those of the eastern colonies, its surface is sufficiently diversified by fertile plains, several long hill ranges, and well-wooded valleys, while the treeless, waterless, and arid districts often teem with mineral wealth.

1. **Mountains.**—The chief mountain ranges in South Australia Proper are the **Mount Lofty Range**,<sup>1</sup> the **Flinders Range**,<sup>2</sup> and the rugged **Gawler Range** in Eyre's Peninsula. In the south-eastern part of the colony are **Mount Gambier**, **Mount Schanck**, **Mount Terrible**, and other isolated peaks that were formerly volcanoes, their craters being occupied by beautiful little fresh-water lakes.<sup>3</sup>

2. **Rivers.**—With the exception of the **Murray River** in the south-east, South Australia Proper has no large rivers, but the Northern Territory is (for Australia) exceptionally well-watered.

The **Gawler**, **Torrens**, and other streams which flow into St. Vincent's Gulf, are nearly or entirely dry for several months every year.

In the Northern Territory, several noble streams enable sea-going vessels to penetrate into the interior for many miles. Among them are the **Roper**, **Victoria**, **Daly**, **Adelaide**, **Liverpool**, and the **South** and **East Alligator** rivers.

3. **Lakes.**—None of the other Australian colonies have so many or such large lakes as South Australia, but, though some of the great salt lakes are over a hundred miles in length, they are of no service to the colony, as they are liable to be dried up, and are absolutely unfitted for navigation.

1. Its principal peaks are **Mount Lofty**, 8 miles to the east of Adelaide, attaining a height of 2,334 feet above the sea, and **Mount Barker** (2,331 feet).

2. The highest summits are **Mount Remarkable**

and **Mount Brown**, both upwards of 3,000 feet in height.

3. The **Blue Lake**, on Mount Gambier, is 240 feet deep, and is surrounded by precipitous rocks, covered with luxuriant vegetation.

One, and the largest, group of salt lakes occupies a vast area to the north of Spencer Gulf. This group includes **Lake Eyre**, **Lake Torrens**, and **Lake Gairdner**—each of them between 90 and 100 miles in length—with several smaller basins, such as **Lake Frome**, **Lake Blanche**, &c. **Lake Alexandrina**, at the mouth of the Murray, is fresh, but shallow and difficult of navigation.

**CLIMATE.**—The climate of South Australia is hotter and drier than that of the other colonies in Australia, but for nine months in the year it is agreeable. In the Northern Territory the climate is tropical, except on the tablelands, where the temperature is lower.

The climate generally resembles that of Southern Italy. There is no winter in the English sense of the term, though slight frosts may be experienced on the plains, and ice seen on the hills, in July and August, which are the coldest months.<sup>1</sup>

**PRODUCTIONS.**—Wheat and flour, wool and copper, are the staple products of South Australia, and both climate and soil are extremely favourable to the extensive cultivation of the vine, the olive, the mulberry, and other plants that require dry heat in order to come to perfection. The soil and climate of the Northern Territory are suitable for the cultivation of almost all tropical plants.<sup>2</sup>

1. **Agriculture.**—South Australia is pre-eminently the agricultural colony of Australia, and the wheat grown on the Adelaide Plains is the finest in the world. Viticulture is also an important industry, and, as a wine producing country, the colony already takes high rank, while oranges and other fruits are unsurpassed in size and flavour.

The pastoral industry, however, still yields the most valuable of all the staple products of the colony, namely, wool, the annual clip amounting to 45 million lbs.<sup>3</sup>

2. **Minerals.**—The mineral resources include vast deposits of copper, iron, and silver-lead, and some gold, bismuth, and tin also exist. Of these, copper is by far the most important, and has been to South Australia what gold has been to Victoria, and coal to New South Wales.<sup>4</sup>

3. **Commerce.**—Nearly the whole of the trade of South Australia, which is very large in proportion to the population, is carried on with the *United Kingdom, New South Wales*, and the other *Australasian Colonies*. Annual value, 17 millions sterling—imports, 8½ millions; exports, 8½ millions.

4. **Ports.**—The principal ports are **PORT ADELAIDE**, **PORT AUGUSTA**, and **PORT PIRIE** in the south, and **PORT DARWIN** in the north.

1. The annual rainfall at Adelaide has averaged about 31 inches during the past 60 years, but in 1889—the wettest year yet recorded—it rose to 81 inches.

2. The indigenous plants and native animals are similar to those of the adjoining colonies. Among the former, the most striking are gum trees, acacias, and grass trees; while the latter include the kangaroo and other marsupials, some hundreds of species of birds, among which are the Emu, the laughing jackass, and other characteristic Australian birds, many species of snakes, and innumerable insects, among them the troublesome mosquito.

3. Camels are used for transport in the interior. There is a large ostrich farm near Port Augusta.

4. Copper was first discovered in one of the hills overlooking Adelaide. The first mine to be opened was at Kapunda, 59 miles north-east of Adelaide, in 1843, but this was eclipsed by the discovery, two years later, of the famous Burra Burra mine, one of the richest copper mines in the world. Even more extensive deposits of copper were discovered, in 1892, at Wallaroo and Moonta in Yorke Peninsula, and the mines there, although they have been worked for 21 years, show no signs of exhaustion.

The numerous and important discoveries of gold, copper, tin, iron, lead, and other minerals, in the Northern Territory, indicate that it may have a great future as a mining country.



5. **Communications.**—There are 4,500 miles of roads, nearly 2,000 miles of railways, and over 5,500 miles of telegraph lines.<sup>1</sup>

**GOVERNMENT.**—A Governor, appointed by the Home Government, is at the head of the executive. The legislative power is exercised by a Parliament, which consists of a Legislative Council and a House of Assembly.<sup>2</sup>

The Northern Territory is governed by a Resident, appointed by the authorities at Adelaide, and assisted by a small staff.

**DIVISIONS.**—The settled portion of the colony is divided into Counties, Hundreds, and District Councils. There are also four Pastoral Districts—the eastern, western, northern, and north-eastern.<sup>3</sup>

**TOWNS.**—Being principally a pastoral and agricultural country, South Australia contains very few towns of any considerable size. Adelaide, the capital, with a population, including its suburbs, of 120,000, is the only large town, and Port Adelaide is the only other town with a population of over 5,000.

**ADELAIDE**, the capital of South Australia and the seat of government, stands in a plain on the small river Torrens, about midway between the shore of the Gulf of St. Vincent and the Mount Lofty range of mountains. Port Adelaide is situated on a fine natural harbour, formed by an inlet of the Gulf.

Other important ports are Port Victor, at the head of Encounter Bay; Port Wakefield, near the head of the Gulf of St. Vincent; Wallaroo, the seaport of the famous Wallaroo copper mines; Moonta, another copper-mining centre and port; Port Pirie, the principal wheat port of the colony; and Port Augusta, the most northern port in South Australia Proper.

Of the inland towns, the most noteworthy are Gawler; Kapunda, a copper-mining centre; Morgan, an important river-port on the north-west bend of the Murray; and Koorunga or Burra, the town of the famous Burra Burra copper mine.

In the Northern Territory the principal place is PALMERSTON, the capital and chief port, situated on the eastern side of a splendid natural harbour, the well-known Port Darwin, and connected by rail with Pine Creek, 150 miles to the south.

#### EXAMINATION QUESTIONS ON SOUTH AUSTRALIA.

1. What are the boundaries of South Australia? What parallel divides the colony into two great divisions? Name these divisions.

2. What two great gulfs indent the coast of South Australia Proper? Name the chief inlets on the coast of the Northern Territory, and mention also the largest islands and chief headlands in each division.

3. What are the characteristic features in the relief of South Australia? Name the chief mountain ranges, rivers, and lakes.

4. Compare the climate of South Australia with that of the other colonies.

5. What are the staple products of South Australia?

6. With what country is the commerce chiefly carried on? Name the principal ports.

7. What is the form of government? How is the Northern Territory governed?

8. Describe briefly the principal towns of South Australia. Name the chief towns in the Northern Territory.

1. The Overland Telegraph Line to Port Darwin was commenced in August, 1870, and completed in August, 1872, at a cost of nearly half a million sterling, or twice as much as the original estimate. This stupendous work crosses the continent almost along the route followed by McDouall Stuart in 1830. The distance from Adelaide to Port Darwin is 1,973 miles.

2. The Revenue and Expenditure for 1890 each amounted to a little over 2½ millions sterling. The Public Debt amounts to a little over 12

millions, one-half of which was spent on railways and tramways, and the rest on water-works and water conservation, harbour improvements, telegraphs, roads, school buildings, and other reproductive public works.

3. In the Northern Territory, four counties—Palmerston, Malmesbury, Disraeli, and Rosebery—have been formed in the north-west, and one—Gladstone—in the basin of the Roper River on the Gulf coast.

## WESTERN AUSTRALIA.

**WESTERN AUSTRALIA**<sup>1</sup> includes the whole of the continent to the west of the meridian of 129° E., and is the largest, but the least populous, of all the Australian colonies.

Western Australia is bounded on the *north* and *west* by the **Indian Ocean**, on the *east* by **South Australia** and its Northern Territory, and on the *south* by the **Southern Ocean**.

This vast colony has an area of over one million square miles, fully one-third of the continent, and no less than 18 times the size of England and Wales.

The **greatest length**, from Cape Londonderry on the north to Peak Head on the south, is 1,490 miles; and the **greatest breadth**, from Steep Point on the west to the 129th meridian on the east, is 850 miles. The **total area** is estimated at 975,920 square miles, or, inclusive of the contiguous islands, over one million square miles. The **population**, in 1891, amounted to 49,200.

**COASTS.**—The coasts of Western Australia are indented by many inlets and estuaries, and are fringed by numerous islands.

Western Australia is rather deficient in good harbours, the only inlets deserving mention are **King George Sound** on the south coast, **Sharks Bay** on the west coast, **King Sound** on the north-west coast, and **Cambridge Gulf** on the northern coast.

Of the numerous islands along the coast, only two are as yet of any importance. These are **Dirk Hartog's Island** off Sharks Bay, and **Rottneest Island** off Fremantle, both on the west coast.

The principal headlands are **Cape Londonderry**, the most northerly point of the colony, **North-West Cape**, **Steep Point**, **Cape Naturaliste**, and **Cape Leeuwin**, the extreme south-western point of the colony, and **Peak Head**, the southernmost point.

**NATURAL FEATURES.**—The surface of Western Australia is less diversified than that of any of the other Australian colonies, and the whole country is virtually a vast plain, often undulating, but generally flat, and broken only by the hill ranges, which stretch along the seaboard, and by isolated elevations and depressions in the interior.

1. **Mountains.**—The principal ranges are the **Stirling Range** in the south, the **Darling Range** in the west, and the **King Leopold Range** in the north. None of the mountains of Western Australia exceed, so far as has yet been ascertained, 4,000 feet in height, and few of them attain an elevation of more than 2,000 feet. But many of them present a striking appearance, inasmuch as they rise abruptly from level plains.

2. **Rivers.**—The rivers of Western Australia are, with few exceptions, simply storm water channels, which carry off immense floods in the rainy season, but are dry, or consist only of occasional pools of water, during the rest of the year.

The **Swan** is the only river in the settled districts in the south-west which is capable of being navigated to any extent. The northern and north-western rivers have much longer courses, but few of them run throughout the year, and navigation is generally limited to the estuaries of the larger streams, such as

1. Western Australia was originally known as the "Swan River Settlement"—that settlement, however, was confined to the south-western corner of the present colony.

the Murchison, the Gascoyne, the Ashburton, the Fortescue, and the De Grey. The Kimberley Division, in the extreme north of the colony, is watered by the Fitzroy, the Ord, and other rivers.

3. **Lakes.**—The so-called lakes—Lakes Moore, Austin, Barlee, &c.—are really immense salt pans or marshes, perfectly dry, "except after heavy rains, when they may be covered with a few inches of water."

**CLIMATE.**—The climate of Western Australia is one of the most healthful and enjoyable in the world. In the north, there is a true tropical climate; in the central portions of the coast region, the climate is like that of Southern Italy; while in the south-west it is like that of the south of England, but the summer is much hotter, and the winter brighter and not nearly so cold.

The rainfall varies from about 40 inches on the coast, from Albany to Freemantle, to less than 20 inches in the hills 50 miles inland, while in the interior there are only occasional showers during thunderstorms.

**PRODUCTIONS.**—Wool is the staple product, and the annual clip exceeds in value the pearls and pearl-shells, the timber and sandalwood, the gold, and other exportable produce of the colony.

The immense forests contain many valuable timber trees, such as the *jarrah*, the *tuart* or white gum, the *karri*, the *red gum* and *blue gum* trees, and other eucalypti, together with *shea oaks* and *wattles*—the bark of the latter being almost as valuable for tanning as oak-bark.

**INDUSTRIES.**—Notwithstanding recent discoveries of large and productive *goldfields*, the large increase of land under *cultivation*, the valuable *pearl-fisheries*, and the large and increasing *timber trade*, the *pastoral industry* is by far the most important occupation, and the chief source of wealth to the colony.

The mineral resources of Western Australia are as yet imperfectly known, but when the deposits of gold, copper, lead, tin, and coal, now worked or known to exist, are fully developed, the colony may prove to be as richly endowed in this respect as any of the other colonies.

**Commerce.**—About half the trade of Western Australia, which consists in the export of raw produce, such as wool, timber and sandalwood, pearl-shell and pearls, gold, hides and skins, guano, *bêche de mer*, and horses, and in the import of manufactured goods, is carried on with the *United Kingdom*, and the rest mainly with the other *Australian Colonies*. Value, in 1890, 1½ millions sterling—imports, £874,000; exports, £872,000.

The chief ports are Freemantle and Albany in the south, and Derby and Wyndham in the north. The mail steamers call regularly at Albany on King George Sound. There are about 600 miles of railway open for traffic, and several hundred miles are under construction.

**GOVERNMENT.**—Western Australia now possesses full responsible government. The New Constitution was proclaimed at Perth on October 21st, 1890.<sup>1</sup>

The Governor is appointed by the Crown, and the legislative authority is vested in a nominated Legislative Council and an elected Legislative Assembly.

1. The Revenue, in 1890, amounted to £415,000, and the Expenditure to nearly £402,000, while the Public Debt was nearly 1½ million sterling. Education is compulsory, but not free. Both the Government and the Assisted Schools are under inspection. There is a High School at Perth and a Grammar School at Freemantle.

**DIVISIONS.**—There are 6 land divisions, namely, the **South-West Division**, the greater part of which has been subdivided into *counties*, and the **Gascoyne, North-West, Kimberley, Eucla, and Eastern Divisions**.

**Towns.**—The chief towns are **PERTH** (9), the capital of the colony, prettily situated on a fine lake-like reach of the Swan River, about 12 miles above its port, **Freemantle** (5), at the mouth of the river; **Guildford**, also on the Swan, 9 miles above Perth, a charming little town surrounded by fields and vineyards; **York** (3), 80 miles east of Perth, on the *Eastern Railway*, which connects at **Beverley** with the *Great Southern Railway*, which runs thence to the principal port of the colony, **Albany** (2), an important port of call on King George Sound. **Geraldton** is the capital and chief port of the Victoria District in the northern part of the South-West Division. **Roebourne**, the chief town in the North-West Division, is connected by a tramway, 8 miles in length, with the port of **Cossack**, a centre of the pearl and pearl-shell fisheries. The **Kimberley goldfields** are about 350 miles west of **Derby**, the capital and chief port of the district, on King Sound, and 200 miles south of **Wyndham**, a rising port on Cambridge Gulf. **Eucla** is a telegraph station at the head of the great Australian Bight, and near the border of South Australia.

#### QUESTIONS ON WESTERN AUSTRALIA.

1. What portion of Australia is included within the colony of Western Australia? What colony adjoins it on the east?  
 2. What is the area and population of Western Australia?  
 3. Name the principal inlets, headlands, and islands on the coasts of Western Australia.  
 4. Describe briefly the natural features of Western Australia, and name the chief mountain ranges and the principal rivers.

5. What countries in Europe have a climate resembling that of Western Australia?  
 6. Name the chief productions. What is the staple product?  
 7. What is the present form of government? When did the colony obtain full responsible government?  
 8. Name the capital and chief ports of Western Australia. Which of the latter is an important port of call?

#### T A S M A N I A.

**TASMANIA**<sup>1</sup> is an island, nearly as large as Ireland, situated to the south-east of Australia, from which it is separated by Bass Strait, a broad channel of from 80 to 150 miles in width.

Tasmania is bounded by **Bass Strait** on the *north*, by the **Tasman Sea** on the *east*, and by the **Southern Ocean** on the *south* and *west*.

The "Garden of the South," as Tasmania is justly called, is a "beautiful and well-watered island, rich in harbours and inlets, traversed by high mountain chains, full of crags, glens, and ravines of commanding appearance. Everywhere on the coast there are good anchorages and many excellent harbours. Altogether, the coast offers the most charming scenery, being for the most part bold and rocky. The interior, especially, is delightful, and here are united, so to speak, the climate of Italy, the beauty of the Apennines, and the fertility of England. Mountain and valley, hill and dale, crowned with high forests and rich pasture grounds in the plains, afford the most pleasing variety."

This heart-shaped island is about 200 miles in length from north to south, and a little less from east to west, while the total area, including the lakes and islands, is over 28,000 square miles. But although the area is more than half that of England, the population is less than 150,000, or one-tenth that of Wales.

1. Tasmania takes its name from the Dutch navigator, **Tasman**, who discovered it in 1642, and named it **Van Diemen's Land**, in honour of

the Governor of the Dutch East Indies, under whose orders he had sailed to explore the "Great South Land."

**COASTS.**—"The comparatively smooth north coast is broken by the long estuary of the Tamar; the west coast is a line of cliffs with one great inlet, Macquarie Harbour, about the middle; but the southern outcurve and the east coast are split into a labyrinth of long inlets, irregular peninsulas, and rocky islands, like Western Scotland."

The Tasmanian coast is, on the whole, bold and rocky, but many of the numerous estuaries and bays form excellent harbours. Even on the inhospitable west coast there are at least three accessible ports—Port Davey, Port Macquarie, and the estuary of the Pieman River. On the north coast, besides Port Dalrymple at the mouth of the Tamar, there are several smaller harbours. The south and south-east coasts are studded with safe bays and harbours, the principal being Port Arthur, in Tasman Peninsula, Storm Bay, leading into the estuary of the Derwent (on which stands Hobart, the capital of the colony), and Port Esperance, on the western side of the D'Entrecasteaux Channel.

Of the 55 islands which belong to Tasmania, the largest are Flinders Island and Barren Island, in the Furneaux Group, at the east end of Bass Strait, and King's Island at the western entrance; with Hunter's Islands off the north-west coast, Schouten and Maria Islands on the east coast, and the double Brunel Island on the south.

The three chief peninsulas are Freycinet Peninsula on the east coast, and the double Tasman and Forestier Peninsula, with Ralph Bay Peninsula, on the south-east coast.

**NATURAL FEATURES.**—Tasmania is a mountainous country, and high ranges of hills and isolated peaks, rocky precipices and tortuous ravines, mountain lakes, rushing streams, and picturesque waterfalls, alternate with beautiful valleys, fertile plains, and grassy uplands.

1. **Mountains.**—On either side of the deep valley or glen, which runs right across the island from the estuary of the Tamar on the north to that of the Derwent on the south, are several irregular mountain ranges and extensive tracts of high tableland, which culminate in Cradle Mountain, 5,069 feet, on the west, and Ben Lomond, 5,010 feet, on the east.

2. **Rivers.**—Tasmania is well-watered by numerous rivers, some of them of considerable size, the largest being the Derwent in the south and the Tamar in the north. The Derwent has a course of 130 miles, and is the longest river in the colony. HOBART, the capital, stands on the western side of its estuary, which forms one of the finest harbours in the Southern Hemisphere. The Tamar, the chief river of the north, is a tidal river 45 miles in length, formed by the confluence of the North and South Esk at LAUNCESTON. The Davey and the Huon rivers in the south are also navigable streams. On the west, the chief rivers are the Gordon and the Pieman.

3. **Lakes.**—Tasmania shows itself to be a truly alpine region by the possession of numerous mountain lakes near the sources of its rivers. The largest are the Great Lake, 12 miles in length and covering an area of 44 square miles, Lake St. Clair, Lake Echo, and Lake Scroell, all drained into the Derwent.

**CLIMATE.**—The climate of Tasmania is admirable.<sup>1</sup> It is hardly ever hot or unpleasantly cold, and the weather is less variable than it is in England.<sup>2</sup>

1. The average summer temperature is about 62°, and that of winter 46°—the mean annual temperature being 55° F.

2. The seasons are, of course, nearly the oppo-

site to what they are in England; summer commences in December, so that a Tasmanian Christmas is a very different thing from its prototype in the old country.

Tasmania is undoubtedly one of the healthiest countries in the world, and the cause assigned for most of the deaths is always "old age." The hot winds of Australia rarely reach Tasmania, and, when they do, they are never of long duration. It is naturally cooler in summer than any of the adjoining colonies, and the winters are as mild as those of the south of France. Snow rarely falls at Hobart, but Mount Wellington, which overlooks the town, is sometimes covered with it even in the summer months. The rainfall varies greatly, not only in different parts of the island, but also at the same place.

**PRODUCTIONS.**—With some remarkable exceptions, the *indigenous plants* and *native animals* of Tasmania are similar to those of Australia. Both climate and soil are extremely favourable to the cultivation of English cereals and fruits, and sheep, cattle, and horses thrive on the luxuriant pastures, while the rich mines of tin, gold, and coal are a great source of wealth to this prosperous colony.

1. **Agriculture.**—Most of the European grains, fruits, and vegetables can be cultivated and brought to perfection in this colony, and some tropical plants also thrive in certain localities.

2. **Minerals.**—Mining, principally for tin and gold, is the most important industry in the colony, but many rich mines of coal and silver-lead are also worked, and excellent slate and stone are quarried. Iron ore exists in abundance, and copper, zinc, bismuth, antimony, asbestos, and precious stones are also found.<sup>1</sup>

3. **Commerce.**—The commerce of Tasmania is carried on almost entirely with the adjoining colonies and the mother country. Annual value, a little over 3½ millions sterling, the imports being about one-fifth larger than the exports.

Wool and minerals, principally tin and gold, comprise more than half the exports—the rest include green fruit and jam, potatoes, timber and bark, hops, hides and skins, sheep and horses, &c. There are about 6,000 miles of good roads and over 400 miles of railways. HOBART and LAUNCESTON are the two chief ports of the colony.

**GOVERNMENT.**—The Parliament of Tasmania consists of a Legislative Council and a House of Assembly. The Governor is aided by an Executive Council.

The Revenue, in 1890, amounted to a little over, and the Expenditure to a little under, three-quarters of a million. The Public Debt, in the same year, was about 6½ millions sterling, the whole raised for public works.

Education is compulsory and unsectarian. The elementary schools are under Government control. There are many grammar schools and private colleges, and an Act of 1889 authorised the establishment of a university at Hobart.

**DIVISIONS and TOWNS.**—Tasmania is divided into 18 Counties, and these are again subdivided into Parishes. The largest towns are Hobart, on the Derwent, in the south, and Launceston, on the Tamar, in the north.

1. The extensive and extremely rich deposits of tin ore at Mount Bischoff, in the north-west of the island, were discovered in 1872, and this famous mine, together with the productive workings round Ringarooma and Portland, in the extreme north-eastern corner, have yielded in all about 5 million pounds' worth of tin—the annual output of ore now amounts to about 2,250,000. Gold occurs throughout the northern and western districts, both in alluvium and in

quartz veins. The principal gold mines are at Beaconsfield, on the western side of the Tamar, at Mount Lyell, and along the Queen River, and around Corinna on the Pieman River. Important discoveries of silver and silver-lead were made, in 1898, at Mount Zeehan on the west coast, to the south of the Pieman River. Coal is widely distributed, but the total output, however, does not exceed 50,000 tons a year.

**HOBART** (36), the capital and seat of government, is picturesquely situated at the foot of Mount Wellington, on the River Derwent, about 12 miles from its mouth. **Launceston** (22), the only other large town, is a fine city on the Tamar, about 40 miles from its mouth (Port Dalrymple), and at the confluence of the North and South Esk rivers.

The most important of the smaller towns are **Beaconsfield**, a gold-mining centre on the west bank of the River Tamar; **Waratah**, the township at the foot of the famous Mount Bischoff, the tin from which is conveyed by rail to **Emu Bay** (Burnie); **Ringarooma**, the shipping port for the tin mines in the north-east; **Devonport**, which includes **Formby**, with **Torquay** (Devonport East) at the mouth of the Mersey; **Stanley** or **Circular Head**, the chief port in the north-west; **Corinna**, the centre of the Pieman River gold-fields; **Mount Zeehan**, an important silver-mining centre on the west coast; **Franklin**, on the Huon River, famous for its apples, pears, and jam fruits; and **Fingal**, a coal-mining town on the River South Esk. There are a large number of other delightful little towns and pretty villages in this prosperous and pre-eminently British colony.

### QUESTIONS ON TASMANIA.

1. Where is Tasmania? By what name was the island formerly known? What strait divided it from the Australian continent? What sea lies between it and New Zealand?
2. Describe briefly the coasts of Tasmania, and enumerate the principal openings, islands, and peninsulas.
3. What kind of surface has Tasmania? Name its two highest mountains and two longest rivers.
4. What kind of climate does it enjoy?
5. What vegetable and mineral productions

are found in Tasmania? What minerals are found at Mount Bischoff and Mount Zeehan?

6. With which countries is the commerce of Tasmania mostly carried on? Name the principal articles of export from the colony.

7. What is the form of Government?

8. How is Tasmania divided? Describe briefly the capital and the second largest town in the island. Say on what river each of them stands.

9. Name some of the smaller towns in Tasmania.

### NEW ZEALAND.

THE COLONY OF NEW ZEALAND<sup>1</sup> consists of two large islands known as the **North Island** and the **South Island**, together with a much smaller island called **Stewart Island**, to the south of South Island, and a number of outlying islands collectively known as the **Off Islands**—the whole group being situated in the South Pacific Ocean, about 1,000 miles to the south-east of Australia.<sup>2</sup>

The **South Pacific Ocean** is the boundary of New Zealand on all sides. That part of it which lies between New Zealand and Australia is now distinguished as the **Tasman Sea**, in honour of the first discoverer of New Zealand and Tasmania.

With the exception of the northern portion of North Island, which bends towards the north-west, the islands extend in a south-west to north-east direction for nearly 1,200 miles, but a straight line from the **North Cape**, in North Island, to the **South Cape**, in Stewart Island, does not exceed 900 miles in length. The breadth varies from a few miles, as at **Auckland**, to 250 miles, the average being about 120 miles. The **total area** of the colony is over 100,000 square miles, or considerably more than that of Great Britain.

1. New Zealand was discovered in December, 1640, by the famous Dutch navigator, **Tasman**, who gave it the name, first of all, of *Suavia* or *Statenland*, in honour of the States-General or Parliament of Holland, afterwards altering it to *Nova Zeelandia*, after his native province of Zealand in Holland.

2. In shape, New Zealand, as seen on the map, resembles a top-loot, turned upside down,

broken in two just above the instep, and having the toe pointing towards Australia—the *North Island* representing the foot, the *South Island* the top or leg, and *Stewart Island* “the torn loop.” New Zealand thus resembles Italy in shape, as it also does in size, climate, and natural conditions generally, and, “if Italy were insular and surrounded by vast tracts of water, the resemblance would be complete.”

**COASTS.**—The coasts of New Zealand nearly equal in extent the coasts of Great Britain, but though they are, in parts, deeply indented by numerous inlets, they are not so rich in harbours and navigable estuaries as the British coasts.

1. **Inlets.**—The chief inlets in the *North Island* are the **Bay of Islands**, **Hauraki Gulf**, and the **Bay of Plenty**, on the north-east; **Poverty Bay** and **Hawke Bay**, on the east; **Palliser Bay** and **Port Nicholson**, on the south.

The principal openings in the *South Island* are **Golden Bay** and **Tasman Bay**, on the north; **Cloudy Bay**, on the north-east; **Pegasus Bay**, with **Port Lyttelton**, on the east; **Otago Harbour**, on the south-east; **Bluff Harbour**, on the south; and **Chalky Inlet**, **Dusky Bay**, and **Milford Sound**, on the south-west.

2. **Straits.**—The principal straits are **Cook Strait**, a navigable channel, from 15 to 80 miles in width, between North and South Island; and **Foveaux Strait**, 15 miles in width, between South Island and Stewart Island.

3. **Capes.**—The principal headlands in the *North Island* are **Cape Maria Van Diemen**, the most westerly point; **North Cape**, the most northerly; **East Cape**, the most easterly; and **Cape Palliser**, the most southerly point of the island. **Cape Egmont** is the extreme point of the great outcurve on the west coast. In the *South Island* the chief capes are **Cape Farewell**, the most northerly point; **East Head**, on the east; **The Bluff**, on the south; and **West Cape**, on the west.<sup>1</sup>

4. **Islands.**—There is a considerable number of islands and islets on the coasts of the main islands, such as the **Three Kings** off the extreme northern coast, the **Great Barrier** and other islands on the north-east coast of North Island, **D'Urville** and **Arapawa Islands** on the north-east coast of South Island, and **Resolution** and other islands on the south-west coast. **Kapiti Island** is in Cook Strait, and **Ruapuke Island** in Foveaux Strait.

The *Off Islands* of New Zealand include several island groups and islets situated some hundreds of miles to the north, east, and south of the main islands. They include the **Chatham Islands**, about 536 miles to the east of Lyttelton; the **Auckland Islands**, 180 miles, and **Campbell Island**, about 320 miles to the south of South Island; the **Bounty Islands** and the **Antipodes Islets**, about 470 miles east of Stewart Island; and the **Kermadec Islands**, a group 600 miles north-east of Auckland.

**NATURAL FEATURES.**—The surface of New Zealand is agreeably diversified by lofty mountains, wooded hills, well-grassed plains, fertile valleys, beautiful lakes, and swiftly flowing rivers. In the South Island, the snow-covered "cloud-piercing" **Southern Alps**, with their huge glaciers and alpine lakes, rival those of Switzerland, while the lofty volcanoes and the wonderful lakes and hot springs of the North Island are among the most marvellous physical phenomena on the globe.

1. **Mountains.**—With the exception of a few lofty volcanic peaks, the mountains of *North Island* are of moderate elevation, and do not vie in grandeur or magnitude with the great ranges which traverse the South Island and rise, in the massive **Southern Alps**, far above the snow-line.

1. At the south of *Stewart Island* is **South Cape**. **South-West Cape** is the extreme point of an adjacent islet, and is the southernmost point of New Zealand.



In the North Island, the main range extends, under various names, from the north-eastern outcurve to the shores of Cook Strait—the two principal sections being the **Ruahine Range** and the **Tararua Mountains**.

To the south of Lake Taupo rise the lofty cone of **Tongariro**, an active volcano, 6,500 feet in height, and the still loftier and more massive **Euapehu**, an extinct volcano, 9,195 feet above the sea. **Mount Egmont** is an extinct volcano, in the centre of a rounded promontory on the south-west coast of the island.

In the South Island, the main range is, as in the North Island, known by different names in different parts. The central and loftiest portion of the chain is known as the **Southern Alps**, which rise far above the limit of perpetual snow. The culminating point, **Mount Cook**, rises to a height of 13,350 feet. This massive mountain, and many other heights, are covered with perpetual snow, while the higher valleys are filled with immense glaciers, which feed the alpine lakes, the basins of which were formed by ancient glaciers of still greater extent. **Stewart Island** is also mountainous, but its highest peak, **Mount Anglem**, is only 3,200 feet in height.

The most extensive plains in New Zealand are the **Canterbury Plains**, which extend from Banks' Peninsula to the Southern Alps, a distance of about 100 miles.

2. **Rivers.**—New Zealand abounds in rivers, and running streams are numerous everywhere. Though some of the rivers are of considerable length, none are navigable for more than a short portion of their course. The longest rivers are the **Waikato**, in North Island, and the **Clutha**, in South Island.

3. **Lakes.**—The lakes of New Zealand are doubly interesting—those of North Island being of *volcanic origin*, while the alpine lakes of South Island have been formed by *glacial action*.

The largest lakes in North Island are **Lake Taupo**, nearly in the centre of the island, and **Lakes Tarawera**, **Rotorua**, and **Rotomahana**,<sup>1</sup> in the Hot Lake District.<sup>2</sup>

In the South Island there are a number of true alpine lakes on the slopes of the Southern Alps, the largest of which are **Te Anau**, **Manipori**, **Wakatipu**, **Wanaka**, and **Hawea**. There is also an extensive sheet of fresh water—**Lake Ellesmere**—on the east coast, near Banks Peninsula.<sup>3</sup>

**CLIMATE.**—The climate is temperate and healthy, and differs only from that of Great Britain in being warmer and more equable, while the air is drier and more elastic. High winds and gales are frequent, and rain falls all the year round.

The prevailing winds are from the north-west, and the rainfall is much heavier on the western than on the eastern coasts—the amount falling at Taranaki, on the west coast of North Island, being more than double the fall at Napier, on the opposite side of the island; while in the South Island nearly five times as much rain falls on the west coast as on the east.

**Plants and Animals.**—With one or two doubtful exceptions, there are scarcely any truly indigenous animals, but the native plants are wonderfully peculiar, and most of them are found nowhere else.

1. *Roto*, in the Maori language, means "lake."  
 2. The *Hot Lake District*, between Lake Taupo and the Bay of Plenty, is remarkable for its hot lakes, mud volcanoes, boiling springs, and the exquisite terraces—which, alas, were destroyed in 1886, when *Mount Tarawera*, till then believed to be a wholly extinct volcano, broke out with terrific violence, and devastated what had been, and to some extent still is, one of the most wonderful regions in the world.  
 3. For a detailed description of the mountains, rivers, and lakes of New Zealand, see the *Advanced Class-Book of Modern Geography*, pp. 757-762. (London: George Philip & Son).

**INHABITANTS.**—With the exception of about 42,000 Maoris, 4,500 Chinese, and about 15,000 Germans, Danes, Scandinavians, French, Americans, &c., the people of New Zealand are British or of British origin—more than one-half of them born in the colony, the rest being settlers from Great Britain and Ireland.

The Maoris (i.e., the aborigines or natives), as the natives of New Zealand call themselves, are the finest in physique and the highest in intelligence of all the Polynesian peoples. In character, the Maoris are "warlike, courageous, quick at learning, good at imitation, fond of oratory, and susceptible of strong religious feelings; but they are vain and proud, revengeful and jealous, though not devoid of good qualities, and are now on good terms with the colonists."

The British colonisation of the islands may be said to date from 1814, when the first missionary settlement was established at the Bay of Islands. In 1891, the total population (exclusive of the Maoris)<sup>1</sup> amounted to 625,662, an average of 6 per square mile.

**INDUSTRIES.**—New Zealand is, first and foremost, a sheep-farming and, therefore, a *wool-producing* country, also exporting large quantities of *frozen mutton*; secondly, a *cattle-rearing* country, exporting *hides* and *frozen beef*; thirdly, an *agricultural* and *fruit-growing* country, exporting *grain* and *farm products* largely; and, lastly, a *mining* country, producing *gold, coal, silver,* and other minerals.

The pastoral industry is by far the most important, and the available land is mainly used for rearing sheep and cattle. Wool is the staple product, and over 100 million lbs. are now annually exported, nearly the whole of it going to London. The trade in frozen meat is now very large and rapidly increasing.

But although the colony is mainly pastoral, it is also very largely agricultural, and produces more wheat, oats, and barley than any other Australasian colony. All kinds of English fruits and vegetables thrive in almost all parts of the colony, and grapes and oranges come to perfection in the warmer parts of North Island.

The mineral resources of New Zealand are almost as rich as those of any other Australasian colony. They include rich deposits of gold, extensive coalfields, almost every variety of iron ore, as well as immense quantities of iron sand, which abounds on the sea coast, and some silver, tin, copper, and other useful metals and minerals.

**COMMERCE.**—The commerce of New Zealand is mainly carried on with the United Kingdom and other Australasian Colonies—the trade with foreign countries, chiefly the United States and China, is very small. As in the other Australasian colonies, the volume of trade in proportion to the population is very great, but the exports are more largely in excess of the imports in New Zealand than in any other colony. Total value in 1890—exports, 9½ millions sterling; imports, 6½ millions.<sup>2</sup>

1. About 40,000 of the Maoris dwell in the North Island. Less than 2,000 are found in the South Island, about 100 in Stewart Island, and about the same number in the Chatham Islands.

2. Fully two-thirds of the imports are from

and two-thirds of the exports go to, Great Britain, the annual value of the trade between the colony and the mother country being now considerably over 10 millions sterling.

The chief exports, in order of value, are *wool, grain and flour, gold, frozen meat, kauri gum, phormium* or New Zealand flax, *butter and cheese, hides, skins and leather, timber, tallow, preserved meat, live stock, bacon, and hams.*

The chief imports, also in order of value, are *clothing and clothing materials; iron and steel goods and machinery; tea and sugar; spirits, wines, and beer; paper, books and stationery; oils and coal; fruit, &c.*

**Ports.**—The principal ports for vessels entering and clearing for the United Kingdom are **Auckland** and **Wellington** in the North Island, and **Port Lyttelton** for **Christchurch**, and **Port Chalmers** for **Dunedin**, in the South Island.

**Communications.**—In addition to about 2,000 miles of railways, there is an extensive coaching system between the railway termini and other important centres, and constant communication by steamers between all the principal ports in the colony, and also with the Australian colonies, England, and America.

**GOVERNMENT.**—The general government consists of a Governor appointed by the Crown, a Ministry who form the executive, and a Parliament of two Chambers.

The Revenue for 1890 amounted to 4½ millions sterling, and the Expenditure to 4 millions, while the Public Debt amounted to nearly 39 millions sterling, or £82 per head of the population.

Elementary education is free, secular, and compulsory. The University of New Zealand has power to confer degrees, but, like the London University, it is solely an examining body. To it are affiliated the *Otago University* at Dunedin, the *Canterbury College* at Christchurch, and the *University College* at Auckland. There is no State Church, and no State aid is given to any form of religion.

**DIVISIONS.**—Up to the year 1876, New Zealand was divided into nine provinces—four in the North Island and five in the South Island—but in that year the provincial governments were abolished, and the colony was then divided into Counties. The provincial divisions are now termed Provincial Districts.

The Four Provincial Districts in the North Island are *Auckland*, in the north; *Taranaki*, in the west; *Hawke's Bay*, in the east; and *Wellington*, in the south.

The Five Provincial Districts in the South Island are *Nelson* and *Marlborough*, in the north; *Westland*, in the west; *Canterbury*, in the east; and *Otago*, in the south.

**Counties.**—These Provincial Districts are, for purposes of local government, divided into Counties, which, in 1876, were 63 in number—32 in the North Island, 30 in the South Island, and 1 in Stewart Island. The number of Counties has since been increased to 78 by the subdivision of some of the larger counties.

**TOWNS.**—All the chief towns of New Zealand are on or near the coast, and although two-fifths of the people live in towns, there is no such concentration in one large town as in Victoria, where one-half the people live in Melbourne, or as in New South Wales, where two-fifths of the population reside in Sydney. Recent returns show a large increase in the town population, but even yet there are only four towns with over 10,000 inhabitants, namely, **Auckland** and **Wellington**, in the North Island, and **Dunedin** and **Christchurch**, in the South Island.

**WELLINGTON** (30), the capital of the colony and the seat of government, stands on the shores of a splendid natural harbour—Port Nicholson—on the northern side of Cook Strait. It lies about 1,200 miles south-east of Sydney and 1,400 miles east of Melbourne. **Napier** (9), on Hawke Bay, is the chief port on the east coast of the North Island. **AUCKLAND** (46), the largest city in the North Island, and formerly the capital of the colony, is still the leading seaport. The "Corinth of the South Pacific," as Auckland is called, is picturesquely situated on the eastern side of a narrow isthmus, about 6 miles in width, and its harbour, which opens out into the beautiful Gulf of Hauraki, has sufficient depth of water for the largest ocean steamers.

In the South Island, by far the largest towns are Dunedin and Christchurch. **DUNEDIN** (43), the "Edinburgh of New Zealand," was founded by members of the Free Church of Scotland in 1848, but did not make any great progress until the discovery of the rich goldfields in the Otago district attracted thousands of diggers, and now the city is perhaps the most important commercial centre in the colony. It stands on the shores of a fine bay—Otago Harbour—about 9 miles above its outpost, **Port Chalmers**, at the entrance to the same inlet. **CHRISTCHURCH** (40), the chief city of the provincial district of Canterbury, is "eminently English in its appearance, architecture, and surroundings." It stands on the banks of the Avon, about 6 miles from the port of **Lyttelton** (4), with which it is connected by a railway tunnelled through the hills. **Invercargill**, about 150 miles south-west of Dunedin, is the chief town in South Otago. It is situated on an estuary, 17 miles north of its outpost, **Campbelltown**, on Bluff Harbour. **Oamaru** (5) and **Timaru** (4) are two important ports on the east coast, between Dunedin and Christchurch. **Blenheim** (3), **Picton**, and **Nelson** (11) are the principal towns in the northern part of the South Island. **Hokitika** (3), the capital of Westland, **Greymouth**, and **Westport** (3) are on the western side of the island.<sup>1</sup>

#### QUESTIONS ON NEW ZEALAND.

1. Give a brief general description of New Zealand, indicating its position and extent.
2. Describe the coasts of New Zealand, and mention some of the principal inlets and channels.
3. Name a few of the chief capes and islands of New Zealand. What islands are included in the Off Islands?
4. What are the outstanding features in the relief of New Zealand?
5. Name the principal mountain ranges in the North Island. Where are the Southern Alps? What mountain is the highest in New Zealand?
6. Which are the longest rivers of New Zealand?
7. Name a few of the larger lakes.
8. Where is the Hot Lake District?
9. What do you know of the Maoris?
10. When did the British colonization of the islands commence?
11. What is the present population of the colony?
12. What are the principal pursuits of the people in New Zealand?
13. With what countries is the foreign trade of the colony mainly carried on?
14. Name the chief ports.
15. What is the form of government? How is the colony divided?
16. Name the four largest towns in New Zealand, and give brief descriptions of each of them.
17. Where are Oamaru, Timaru, Blenheim, Nelson, Picton, Hokitika, Greymouth, Westport, and Napier?

#### POLYNESIA.

**POLYNESIA**, the region of *many islands* (from the Greek *polys*, many, and *nēsos*, an island), is the general name given to the islands in the Pacific. In its widest signification,<sup>2</sup> it embraces the whole of

1. Hokitika owes its rise to the discovery of productive goldfields in the vicinity in 1865. Its harbour, though greatly improved, is not so good as that of Greymouth, or that of Westport. Westport is by far the best port on the west coast, and extensive harbour works are in progress. The breakwaters and training walls at Greymouth are also being completed, so that the port will be available at all times.

2. Both New Zealand and New Guinea are true Polynesian islands, but the former forms an integral part of Australasia, a term which is now

generally used to denote the British possessions to the south-east of Asia, and thus includes not only Australia and Tasmania, but also New Zealand, Fiji, and British New Guinea. New Zealand has therefore been described under *Australasia*; but, as British New Guinea is only a part of the island of that name, and seeing that the Fiji Islands are separated from Australia by New Caledonia and other islands, both these colonies are more conveniently dealt with under *Melanesia*, a subdivision of Polynesia, to which they geographically belong.

the **Pacific islands** to the east and north of Australia, with the exception of the East Indian Islands to the west of New Guinea.

Most of the smaller islands and island groups of the Pacific are either of coral formation or of volcanic origin, and many of them are partly *coral* and partly *volcanic*.

The **coral islands** are by far the most numerous. They consist, with few exceptions, of low reefs, raised only a few feet above the level of the sea, and in many cases hardly on a higher level than that reached by the flood tide. They owe their formation to the labours of the *coral insect*, a species of zoophyte, which builds up to the level of the ocean the stony matter formed by its own secretions. When once the surface of the sea is reached, the coral spreads laterally, but the labours of this most wonderful of Nature's architects are no longer continued in a vertical direction, for water is necessary to its existence. It is found that the coral insect cannot exist at a greater depth than from 20 to 30 fathoms, so that the numerous coral reefs of the Pacific Ocean and other seas are based upon submarine rocks.

Most of the coral islands are semicircular in shape, with a lagoon of still water enclosed between the inner curve of the semicircle and the reef which connects its extremities. A few of them form complete circles with enclosed lagoons. One or more openings invariably occur in the reef, through which vessels can enter the lagoon, and ride in safety, while storms rage in the outer ocean.

The **volcanic islands** of Polynesia are not so numerous as the true coral islands, but many of them are of much greater extent, and also, of course, much loftier, rising in many cases to a height of several thousand feet above the level of the sea. Many of these volcanic islands are surrounded by coral reefs, which render the approach to them difficult and often dangerous.

The **climate** of all the true oceanic islands is one of the most delightful in the world. The heat of the Torrid Zone is here tempered by the influence of the vast surrounding ocean, and the temperature undergoes little variation throughout the year, and an almost uniform serenity of atmosphere prevails.

This vast island-world possesses some **productions** that are peculiar to itself, the most important of them being the bread-fruit tree, which yields the "staff of life" to the natives. The banana, cocoa-nut, yam, taro, sweet potato, and arrowroot are common to these islands and to those of the Indian Seas. The sugar-cane, vine, orange, and other fruits of warm latitudes all flourish, and the cultivation of cotton, tobacco, and other commercial products could be immensely extended. None of the larger animals are found in the smaller islands, with the exception of the pig and other domestic animals introduced by Europeans. But the region is wonderfully rich in birds and insects. Many of the birds are gorgeously coloured—the marvellously exquisite birds-of-paradise are probably the most beautiful of all birds.

**DIVISIONS.**—The Pacific Islands, generally included under the term Polynesia, may be subdivided into three great groups—**Melanesia**, **Micronesia**, and **Polynesia Proper**—according to the race of people inhabiting them.

Except along the coasts of the larger and in some of the smaller islands, where they have been brought under the political or religious influence of Europeans, the *Melanesians* are savages, almost constantly at war, and inveterate cannibals. The *Micronesians*, on the other hand, are "the most mildly disposed of all the islanders of the globe," while the *Mahoris*, or brown Polynesians, are a fine race, extremely handsome, and physically, if not mentally, equal to the average European. Christianity has long since taken a firm hold in many of the islands, and the natives are in an advanced state of civilization, but their numbers are diminishing so rapidly that their total extinction as a pure race can only be a question of time.

## MELANESIA.

The Melanesian<sup>1</sup> Islands and island-groups extend from New Guinea on the west to the Fiji Islands on the east, and include New Guinea, with its surrounding islands, the Bismarck Archipelago, the Solomon Islands, the Santa Cruz Islands, the New Hebrides, New Caledonia, the Loyalty Islands, and the Fiji Islands.

**NEW GUINEA**<sup>2</sup> lies to the north of Australia, between the East Indian Seas on the west and the Pacific on the east, while its southern shores are washed by the Arafura Sea, Torres Strait—the narrowest part of which is only 90 miles in width—and the Coral Sea.

According to the most recent surveys, this vast island—the largest in the world next to Australia and Greenland—has an extreme length from north-west to south-east of about 1,550 miles, and a breadth varying, in the middle portion, from 200 to 400 miles, and a total area of over 300,000 square miles. But the population, at the outside, is not more than 2½ millions.

In shape, New Guinea is most irregular, and its south-eastern and north-western extremities are long, narrow peninsulas. To the east of Torres Strait, the coast forms a deep bight, called the Gulf of Papua or the Great Bight of New Guinea; thence it trends south-east nearly to the 151st meridian. To the west of Torres Strait, the coast trends generally north-west, unbroken by any considerable openings. The north-western peninsula is, however, deeply indented, and is almost cut in two by McCluer Inlet. On the northern coast is the vast inlet of Geelvink Bay, which lies between the north-western peninsula and the main portion of the island. Astrolabe Bay and Huon Gulf are smaller openings on the east coast.

Both the northern and south-eastern coasts are bold and rocky, with lofty mountains in the background. The highest mountains in the island are the Owen Stanley Range, in the south-east, in which Mount Victoria attains a height of 18,121 feet; the Charles Louis Mountains, in the north-west, one peak in which is estimated to be 16,730 feet above the sea; and the much loftier Finisterre Mountains, in Kaiser Wilhelm's Land, which attain in Mount Schopenhauer, or Disraeli, an elevation of upwards of 20,000 feet.

In an island with such an excessively humid climate as New Guinea, deluged, as it is, by monsoon rains for half the year, the rivers are extremely numerous, and two of them have been ascended for hundreds of miles inland. These are the Fly River, which forms a vast delta on the western side of the Gulf of Papua, and the Kaiserin Augusta, which debouches on the northern coast.

The climate of New Guinea contrasts strongly with that of Australia. In the dry season it is comparatively healthy, but in the wet season Europeans are prostrated by fever.

The natural productions are as yet imperfectly known, as, with the exception of comparatively small patches cleared by the natives, the whole country is overgrown with dense forests. The natives cultivate, with more or less success, rice, maize, yams, cocoa-nuts, sago, sugar-cane, bananas, and other tropical productions.

The inhabitants of New Guinea are known as Papuans, a name derived from a Malay word *papwah*, meaning "woolly-haired," or "frizzled," which accurately describes the huge frizzled-out mop of hair that constitutes the pride and glory of the Papuan.

1. Melanesia means "the islands of the blacks" (from the Greek, *melas*, black, and *nesos*, an island).

2. The name New Guinea was given to the island by a Spanish navigator who touched at several points on the coast in 1546.

The western half of New Guinea is claimed by **Holland**; the north-eastern portion, together with the Bismarck Archipelago, forms a **German Protectorate**; while the south-eastern portion is a **British Crown Colony**.

**DUTCH NEW GUINEA** includes the whole of the island to the west of the 141st meridian E. It has an area of about 150,000 square miles, and a population of perhaps a million.

**GERMAN NEW GUINEA**.—The Imperial Protectorate of **GERMAN NEW GUINEA** includes the north-eastern division of the island, now called **Kaiser Wilhelm's Land**,<sup>1</sup> and extends over the **Bismarck Archipelago**, and the northern **Solomon Islands**.

**BRITISH NEW GUINEA**, which includes the south-eastern part of the island, is a Crown Colony. It has an area of 90,000 square miles, and a population of perhaps half a million. The colony is governed by an Administrator, aided by a nominated Legislative Council.<sup>2</sup> The seat of government and the chief trading centre is **Port Moresby**, a small settlement conveniently situated on the shores of a land-locked harbour on the eastern side of the Gulf of Papua.

**PAPUAN ISLANDS**.—The Papuan Islands include all those islands off the coasts of New Guinea which belong to the same geographical area as the main island.

The north-western peninsula is fringed by a large number of islands, some of them over 100 miles in length. The south-eastern peninsula is also fringed by a number of islands, but these are smaller in size than the north-western islands, and more mountainous. These include the **D'Entrecasteaux Islands** and the **Louisade Archipelago**, both of which form part of the colony of British New Guinea. **Murray Island**, at the eastern entrance to Torres Strait, is now annexed to the colony of Queensland.

**THE BISMARCK ARCHIPELAGO**, which includes the **New Britain Group** and the **Admiralty Islands**, forms part of the German Protectorate of New Guinea.

The aggregate area of these islands is about 20,000 square miles; the inhabitants may number about a quarter of a million. The German Administrator resides at **Herbertshöhe**, in New Britain or New Pomerania.

**THE SOLOMON ISLANDS**.<sup>3</sup>—About 500 miles to the eastward of New Guinea is a large group of islands known as the **Solomon Islands**.

This group extends for 700 miles in a north-west and south-east direction, and consists of a chain of islands—the four northern islands—**Bougainville**, **Choiseul**, **Ysabel**, and **Malayta**, being separated by channels varying in width from 15 to 50 miles from the southern chain, which includes three large islands—**New Georgia**, **Guadalcanar**, and **San Christoval**—and several smaller islands and islets. The group has a total area of perhaps 15,000 square miles, or considerably more than twice as large as Wales, while the savage Melanesian inhabitants may number 150,000.

1. Kaiser Wilhelm's Land was declared a German Protectorate in 1884.

2. The territory was first taken over, in 1884, as a Protectorate, and was constituted as a Crown colony, under the name of British New Guinea, in 1888.

3. The Solomon Islands were first discovered by a Spanish navigator, Mendana, in 1568. He gave them the name of the Islands of Solomon, in order that his countrymen, supposing them to be the islands whence King Solomon obtained his gold, might be induced to colonise them.

All the islands are mountainous and generally volcanic, and most of them are girdled by coral reefs. They are, for the most part, clothed from coast to summit with the densest tropical forest, in which the immense *fecus* trees are often conspicuous objects. In the neighbourhood of native villages, the beach is fringed with cocoa-nut palms.

By an arrangement between Great Britain and Germany, the group has been divided, the northern islands remaining within the German sphere of influence, and the southern islands within the British sphere. In 1886, Germany definitely annexed Bougainville, Choiseul, and Ysabel, the three largest islands in the group, and attached them to her New Guinea Protectorate.

**THE SANTA CRUZ ISLANDS** and the **NEW HEBRIDES** form a long chain of islands between the Solomon Islands and New Caledonia.<sup>1</sup>

The **Santa Cruz Islands**, though independent, are within the *British sphere of influence*, while the **New Hebrides** are under the *joint protection* of France and England.

The New Hebrides and the larger islands of the Santa Cruz group are of volcanic origin, and some of the volcanoes are still active, and there are boiling springs on one of the Banks' Islands. The appearance of almost all the islands is very beautiful—steep hills, covered with fine forest trees, rising abruptly from the sea, while groves of cocoa-nut palms surround the villages.

**NEW CALEDONIA.**—The island of New Caledonia, the most southerly of the Melanesian islands, lying about 800 miles east of Australia and nearly 1,000 miles to the north of New Zealand, is a *French penal colony*.

With its dependencies—the **Isle of Pines** and the **Loyalty Islands**—the colony has an area of about 7,600 square miles, and a population of over 60,000, two-thirds of whom are natives, the rest are French convicts, soldiers, and colonists. **NOUMEA** (5), the capital, is situated on a fine harbour on the south-western coast. Foundries and furnaces for the treatment of the *nickel ore*, now so extensively mined in the island, are being erected near the town.

**THE FIJI ISLANDS.**—The charming archipelago of Fiji, or more properly *Viti*, embraces in all 255 islands and islets, scattered over an ocean area of 300 miles from west to east, and 200 miles from north to south, between the parallels of 15° and 28° S. latitude, and about 1,250 miles north of Auckland, 1,860 miles north-east of Sydney, and nearly 5,000 miles south-west of San Francisco.

Two of the islands are of considerable size—the largest, **Viti Levu** (4,112 square miles), being considerably larger than Cyprus, while the second largest, **Vanna Levu** (2,432 square miles), is about three times the size of Mauritius. The other islands range from an area of 217 square miles to mere rocks. The total area of the inhabited islands is 7,740 square miles, or slightly larger than that of Wales, and the population, including the 2,300 inhabitants of **Rotumah**, a small island annexed to the colony in 1880, amounts to about 125,000, of whom 110,000 are native Fijians,<sup>2</sup> 6,000 Indian and 2,300 Polynesian immigrants, 2,000 Europeans, and nearly 1,000 half-castes.

1. Erromango, the most northerly of the southern portion of the New Hebrides group, is memorable as the place where the courageous and devoted missionary, John Williams, was killed by the savages.

2. The Fijians, who are by far the most intel-

ligent of all the Melanesian peoples, have mainly as the result of the labours of the Wesleyan missionaries, become civilized and Christianized, and it is said that there are no more devoted Christians in all Polynesia than the Erromangans, while treacherous and savage cannibals of Fiji.



All the Fijian Islands are of volcanic origin, and are therefore mountainous, some peaks in Vanua Levu rising to about 5,000 feet above the sea level; the smaller as well as the larger islands are abundantly watered by numerous rivers—through almost every valley flows a running stream, from which an ample supply of water for irrigation and other purposes can be obtained all the year round. Many of the rivers in the two larger islands are even navigable for canoes and good-sized boats. The longest river—the Rewa Rewa, in Viti Levu—is navigable for 50 miles from its mouth. Every island in the group is almost encircled by a barrier reef, which forms an admirable break-water, and, once through the opening, vessels ride at anchor in perfect safety.

The climate, though hot, is remarkably healthy, and the larger and some of the smaller islands afford a delightful tropical residence. Hundreds of English people have lived continuously in Fiji for years in the enjoyment of excellent health.<sup>1</sup>

The soil is everywhere fertile, and there is hardly any land that is not capable of being profitably cultivated. Many tropical products, such as *bananas, maize, cotton, sugar, tea, coffee, yams, pine-apples, &c.*, are already grown to some extent; the *coco-nut palm plantations* afford a certain income, while the *numerous forests* contain a great number of valuable timber trees.

The geographical position of these islands, relative to the Australasian colonies and the Pacific Coast of America, their multifarious resources, and fine harbours, so easily rendered impregnable, combine to make Fiji one of the most valuable and important of the smaller British possessions.

The Fiji Islands form a British Crown Colony under a Governor, appointed by the Home Government, assisted by an Executive and a Legislative Council.\*

Fiji possesses but two towns, namely, **SUVA**, the present capital, on the island of Viti Levu, and **Levuka**, the former capital, on the island of Ovalau.

With the Fijian group, the Melanesian islands end—the Tonga Islands and other archipelagoes to the east and north-east are included in Polynesia Proper, while the innumerable little volcanic islands and coral atolls that extend between Fiji and the Philippines form the Micronesian division of the Pacific islands.

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## MICRONESIA.

**MICRONESIA**<sup>a</sup> is the general name given to the countless multitude of little islands that dot the surface of the Western Pacific, to the north of the Melanesian islands, and extend in a vast curve from the Philippines on the west to the Fiji Islands on the east.

These islands, the largest of which—*Guam*, one of the Ladrone Islands—has an area of only 200 square miles, are grouped in three great archipelagoes:—a northern group including the **Ladrones** or **Marianne Islands**, and the **Bonin Islands**; a western division embracing the large group of the **Caroline Islands**; and an eastern group, which includes the **Marshall Islands** to the north of, the **Gilbert Islands** under, and the **Ellice Islands** to the south of, the Equator.

1. The mean annual rainfall in Viti Levu is over 100 inches; and the absolute minimum temperature at Suva, the capital, was, in 1888, 63° F., and the absolute maximum 91° F.

2. The Revenue is a little over, and the Expenditure under £60,000, and there is a small Public Debt. The imports amount to about £200,000,

and the exports to over £350,000. The direct trade with Great Britain is small—most of the imports from, and exports to, Great Britain, passing through Australian and New Zealand ports.

3. *Micronesia* means "small islands" (from the Greek *micros*, small, and *nesos*, an island).

None of the Micronesian islands are independent—the Bonin Islands belong to *Japan*; the Ladrone, Carolines, and the Pelew chain belong to *Spain*; the Marshall and Gilbert Archipelagoes have been annexed by *Germany*; while the Ellice Islands are within the *British* sphere of influence.

The Bonin and the Ladrone<sup>1</sup> Islands are the most northerly of the Micronesian archipelagoes. They extend in a long chain between the Caroline Islands and Japan, and are almost exclusively of volcanic origin.

The Pelew Islands, which lie about 600 miles east of Mindanao, the most southerly of the Philippines, form the most westerly of all the Micronesian archipelagoes.

The Caroline Islands are so widely scattered that they stretch from the Pelew Islands to the Marshall Archipelago—a distance of 2,000 miles—and so small that the 500 islands and islets included in the group cover an area of less than 500 square miles, while the population does not exceed 30,000.

The Marshall Islands, which were annexed by Germany in 1885, are the most northerly of the three eastern archipelagoes of Micronesia. They have an aggregate area of about 150 square miles, and a population of perhaps 10,000.

The Gilbert Islands, an equatorial group of 18 little atolls, also belong to Germany. The aggregate area is scarcely 150 square miles, but the population amounts to between 40,000 and 50,000, an average of about 300 per square mile.

The Ellice Islands, which lie midway between Fiji and the Gilbert archipelago, are within the British sphere of influence. The eight islands of this group are purely coralline. They have an area of about 170 square miles.

## POLYNESIA.

POLYNESIA, in the restricted sense of the term, that is, as applied to the third great division of the Pacific islands, embraces numerous charming archipelagoes and a vast number of scattered islets in the Eastern Pacific.

These islands and island groups, all of which, with very few exceptions, lie to the eastward of the 180th meridian, are inhabited by people of the same race—the *Mahoris* or brown Polynesians—speaking dialects of the same language, and extend over a tract of sea three times the size of Europe; but, though so numerous, they are so small that their combined area would hardly equal that of one of the smallest countries of Europe. Unhappily, the natives, who, as a rule, are tall and extremely handsome—being, physically, one of the finest races on the globe—have, since the time when Europeans first became familiar with them,<sup>2</sup> rapidly decreased in numbers, and “although Christianity has taken a firm hold in many of the islands, the white traders do more harm than the missionaries can do good,” and the people are still diminishing, and seem doomed to disappear before “the relentless march of our too imperfect civilization.”

Of the many archipelagoes of Polynesia Proper, the most important are the Sandwich Islands, to the north of the Equator, and the Tonga, Samoa, Hervey, Society, and Marquesas Islands, and the Low Archipelago, to the south of the Equator.

1. These islands were called “*Islas de los Ladrones*,” i. e., “thieves’ islands,” by the crew of Magellan’s ship, on account of the thieving propensities of the natives. They were discovered by Magellan in 1521, and have belonged to Spain since 1663.

2. In the latter half of the 18th century.

**THE SANDWICH ISLANDS.**—HAWAII, or the Sandwich Islands, is, next to New Zealand, the most extensive of all the true Polynesian archipelagoes, and the position of the group—midway between the Old and the New Worlds—is one of great commercial importance.

Hawaii, the largest, and also the most southerly, of the eight inhabited islands, has an area of 4,210 square miles, and the entire group covers an area of about 6,700 square miles, but the population scarcely exceeds 80,000, only one-half of whom are *natives*, the rest being *Chinese*, *Portuguese*, and other foreigners and half-castes. HONOLULU (20), situated on an excellent harbour on the south coast of the island of Oahu, is the capital and largest town.

All the islands are volcanic, and Hawaii itself contains the loftiest mountains and most powerful volcanoes in all Polynesia. The huge Mauna Kea, or White Mountain, 13,954 feet in height, and the once dreaded Mauna Hulalal, 11,020 feet, now slumber; but the gigantic Mauna Loa, or Grand Mountain, 13,760 feet, awakes at uncertain intervals into destructive activity, while the awe-inspiring crater of Kilauea, a veritable lake of fire, on the eastern flank of the Grand Mountain, is in a state of constant activity and occasionally overflows. Enormous floods of molten lava then roll down the slopes, and some of the streams have burned their way as far as the harbour of Hilo on the one side, and on the other to the Bay of Kealahakua, the scene of the murder of Captain Cook, the famous navigator, who discovered these islands in 1778.

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The Phoenix, Union or Tokelau, and Manihiki Islands, together with two isolated islets—Malden and Starbuck—all belong to Great Britain, with the exception of two islands in the Phoenix group and two of the Union Islands which are occupied by the Americans.

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**THE MARQUESAS.**—The mountainous Marquesas Islands, which belong to France, are of volcanic origin, and, like all the volcanic islands of Polynesia, are picturesque and fertile.

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**SOUTHERN POLYNESIA.**—Under this term we may include the numerous groups of coral and volcanic islands that extend for 3,000 miles to the east of the Fijian Archipelago. The principal groups, from west to east, are the Tonga or Friendly Islands, the Samoa or Navigator Islands, Cook or Hervey Islands, the Society Islands, Tubuai or Austral Islands, and the Low Archipelago. The isolated Pitcairn, Easter, and other islands are still further east.

**TONGA**, a Polynesian word for "islands," is the native name of three groups of volcanic and coral islands about 400 miles east of Fiji. They were discovered by Tasman in 1643, and visited by Cook in 1777, by whom they were called the "Friendly Islands."

Tonga is an independent state, under a native king, and there is also a Legislative Assembly, composed of nobles, nominated by the king, and representatives, elected by the people. Nukualofa, on Tongatabu, is the capital and chief port.

**SAMOA.**—The Samoa or Navigator Islands, a group of 14 volcanic islands, are situated about 350 miles north-east of the Tonga Islands.<sup>1</sup>

The largest of these enchanting islands are Savaii,<sup>2</sup> Upolu, and Tutuila. *Apia*, on the island of Upolu, is the centre of trade, which is mainly in the hands of German merchants. The United States have a coaling station at *Pango-Pango*, on the island of Tutuila.

The Cook Archipelago, so named in honour of its discoverer, the famous Captain Cook, consists of a group of nine islands, situated about 700 miles south-east of Samoa.<sup>3</sup> They now form a British Protectorate.

The Society Islands, the most important group in Southern Polynesia, with the Low Archipelago to the east and the Austral Isles to the south, and other islands and island-groups in this part of the Pacific, belong to France, and are officially known as the French Establishments in Oceania.

The Society Islands form a group of eleven volcanic islands, the largest of which is the double island of Tahiti, one of the most beautiful and picturesque islands in the world. *Papeete*, the capital of Tahiti, is the centre of French trade and influence in Southern Polynesia.

The Austral Isles are a group of volcanic islands a few hundred miles south of Tahiti. About 360 miles south of this group is another volcanic island, *Oparo*, or *Rapa*, which also belongs to France. The Low Archipelago consists of a cluster of about 80 atolls, extending for 1,550 miles to the east and south-east of Tahiti.<sup>4</sup> The Gambier Islands are a group of five volcanic islands to the south-east of the Low Archipelago.

Between the Gambier Islands and the South American coast, a distance of 4,000 miles, there are only a few solitary islets, two of which, however, possess special interest—*Pitcairn Island*, as the refuge of the mutineers of the *Bounty*, and *Easter Island*, remarkable for its wonderful ruins of massive stone houses, walls, terraces, and colossal stone images.

*Pitcairn Island* is an isolated mountainous island, about 2 miles long and three-quarters of a mile wide, with a fine climate, a fertile volcanic soil, covered with palms and fruit trees. It was in 1790 that the mutineers of the *Bounty* settled here. Their descendants were removed first to Tahiti and then back again to their island, only to be again removed, in 1856, to *Norfolk Island*, but two years later many of them returned to their island home. They have since increased to about 200, and there is probably no healthier, happier, or more contented and comfortable a community in the world than the isolated islanders of *Pitcairn*. There are some remarkable remains of a settled pre-historic people in *Pitcairn Island*, but the most wonderful of all the evidences

1. Some years ago, Germany attempted to annex these islands, but the United States and England intervened. At a conference on Samoan affairs, held at Berlin in 1889, the three powers agreed to recognise the independence of the native Government, and to guarantee the neutrality of the islands.

2. Savaii disputes with Hawaii the honour of being the original home of the Polynesian race, and of being the traditional *Hawaiki* whence the ancestors of the Maoris of New Zealand migrated to the great southern islands. Both names—Savaii and Hawaii—would be pro-

nounced *Hawaiki* by a Maori, but the word may only have a general meaning, like the word "home" in English.

3. The largest island is the well-known *Rarotonga*, the scene of the missionary labours of John Williams, the apostle of the Pacific, and one of the pioneers of missionary enterprise in the South Sea Islands.

4. The Polynesian name—*Tuamotu* or "distant islands"—is expressive as regards the position of this group, which, with the exception of the Gambier Islands in the south-east, is the most easterly of all the island-groups in the Pacific.

of a mighty past in these distant and solitary islands, are the stone houses and gigantic statues on **Easter Island**, a storm-swept rock, 11 miles long and 4 miles wide, with but little vegetation and no fresh water, except a few springs and pools. In 1860, the island, which has been annexed by Chili, was said to contain a thousand inhabitants; now there are scarcely a tenth of the number. They know nothing of the origin of the 200 statues or idols—huge stone images, 15 to 37 feet in height, cut out of the trachytic lava, many of them still standing, others prostrate and mutilated on the enormous stone platforms on which they stood. These platforms are found on nearly every headland, while, at the south-west corner of the island, are about a hundred massive stone houses with walls 5 feet thick, and doorways facing the sea. The sea-cliffs near the houses have also been sculptured into fantastic shapes or strange faces. Altogether these antiquities of Easter Island are the most mysterious and inexplicable of all the many remains of some pre-historic people that once dwelt in the Polynesian archipelagoes, and perhaps regarded this far distant island as the sanctuary of their gods.

## ANTARCTICA.

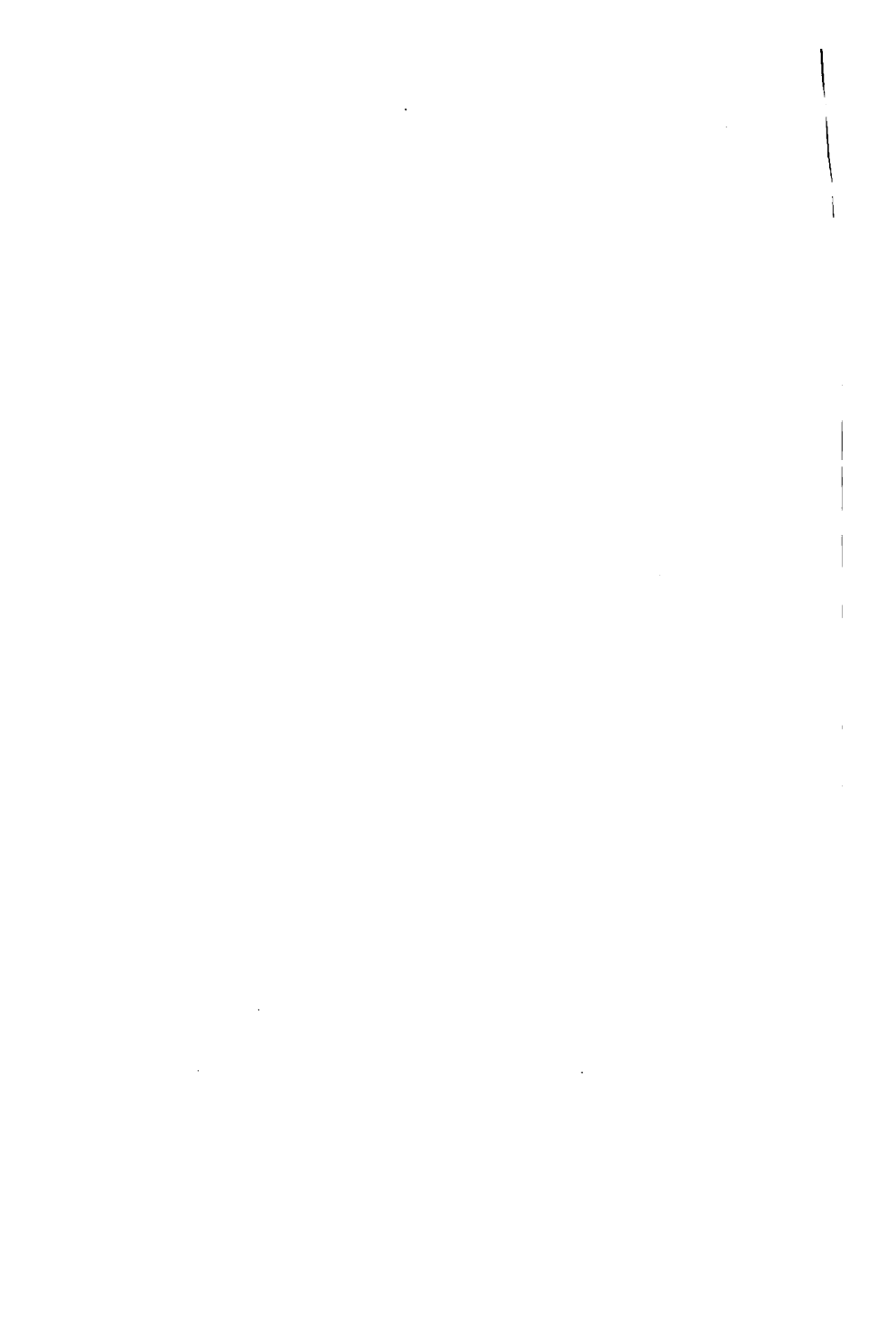
Several tracts of land have been sighted within the Antarctic Circle, and these, no doubt, belong to, or form part of, an immense circumpolar continent, probably larger than Australia, to which the name **Antarctica** has been given.

The principal known points are **Graham Land**, **Louis Philippe Land**, and **Alexander I. Land**, to the south of Cape Horn; **Enderby Island**, about 2,800 miles south of Madagascar; the irregular coasts of **Sabrina Land**, **Clarie Land**, and **Adelle Land**, to the south of Australia; and the extensive **Victoria Land**, almost due south of New Zealand, discovered by Sir James Ross in 1841. The principal landmark on this dreary and most inhospitable coast is a range of mountains, running south and culminating in **Mount Erebus**, an active volcano, 12,367 feet in height, and **Mount Terror**, an extinct volcano, 10,889 feet above the sea-level.<sup>1</sup>

## QUESTIONS ON POLYNESIA.

1. Write out a general description of Polynesia, and point out the difference between the coral and the volcanic islands of the Pacific.
2. Name the three great divisions of Polynesia.
3. What islands are included in Melanesia?
4. Where is New Guinea, and how is it divided?
5. Describe the natural features and productions of New Guinea.
6. Give some particulars respecting each of the three divisions of New Guinea.
7. Name some of the Papuan Islands. Which of them form part of the colony of British New Guinea?
8. Where is the Bismarck Archipelago? To what country do these islands belong?
9. Describe briefly the Solomon Islands. To whom do they belong?
10. What do you know of the Santa Cruz Islands and the New Hebrides?
11. To what nation does New Caledonia belong? What valuable mineral product does it yield?
12. Give a general description of the Fiji Islands. What other island has been annexed to the colony?
13. What islands are included in Micronesia?
14. Which of these islands belong to Spain? Which to Germany and Great Britain?
15. Which division of the Pacific islands is embraced in Polynesia Proper?
16. What do you know of the native inhabitants of these charming islands?
17. Point out the Sandwich Islands on the map and say what you know of them.
18. What islands to the south of the Sandwich Islands belong to Great Britain?
19. To what nation do the Marquesas belong?
20. Name the principal islands in Southern Polynesia.
21. What do you know of Tonga and Samoa?
22. Where is the Cook Archipelago?
23. What other islands in Polynesia, besides the Marquesas, belong to France?
24. Give a short account of Pitcairn and Easter Islands.
25. What portions of Antarctica have been sighted? Which of these were discovered by Sir James Ross?

1. For a short account of the principal explorations in the Antarctic Seas, see the *Advanced Class-Book of Modern Geography* (London: George Philip & Son).



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\* \* *Names of Tribes, Ancient Names, Geographical Terms, Treaties, Battlefields, &c., are in italics.*

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## ETYMOLOGY OF GEOGRAPHICAL NAMES.

## ABBREVIATIONS.

A. S. = Anglo-Saxon.  
Annam. = Annamese.  
Arab. = Arabic.  
Arm. = Armoric.  
Burm. = Burmese.  
Celt. = Celtic.  
Chin. = Chinese.  
Dan. = Danish.  
Eng. = English.  
Er. = Erse.  
Finn. = Finnish.

Fr. = French.  
Gael. = Gaelic.  
Ger. = German.  
Gr. = Greek.  
Haw. = Hawaiian.  
Hebr. = Hebrew.  
Hind. = Hindustani.  
Ioc. = Icelandic.  
Ind. = Indian (South American).  
Ital. = Italian.

Jap. = Japanese.  
Lat. = Latin.  
Mag. = Magyar.  
Mal. = Malayan.  
Mong. = Mongolian.  
Norm. = Norman.  
Norw. = Norwegian.  
Pers. = Persian.  
Pol. = Polish.  
Port. = Portuguese.  
Roum. = Roumanian.

Russ. = Russian.  
Sans. = Sanskrit.  
Scand. = Scandinavian.  
Siam. = Siamese.  
Slav. = Slavonic.  
Span. = Spanish.  
Swed. = Swedish.  
Tart. = Tartar.  
Teut. = Teutonic.  
Turk. = Turkish.

*A* (Swed.—A. S. *éa*), river or stream.  
*Ab* (Pers.), water.  
*Abd* (Hind., Pers.), city or dwelling.  
*Abbas* (Pers.), father.  
*Aber* (Celt.), a confluence or mouth of a river. [Synonymous with *inver*].  
*Ach* (Ger.), stream or water.  
*Ada*, pl. *adalar* (Turk.), island, islands.  
*Adel* (Ger.), nobility or noble.  
*Adrar* (Berber), mountain.  
*Agh* (Er.), *auch* (Gael.), a field.  
*Agua* (Span.), water, from the Latin *aqua*.  
*Aiguille* (Fr.), needle, generic name applied to sharp-pointed mountain peaks.  
*Ain* (Arab.), well, fountain, source, or spring.  
*Ak* (Turk.), white.  
*Akaba* (Arab.), pass or defile.  
*Alb*, *alp* (Celt., cf. Latin, *albus*, white) applied to lofty white (snow-covered) mountains, chalk cliffs, &c.  
*Albufera* (Span.), lagoon.  
*Al*, *al-ian* (Gael.), white, white water.  
*Allt* (Welsh), steep road or path.  
*Alsó* (Magyar), under, inferior.  
*Alt* (Ger.), old.  
*Alto*, pl. *altos* (Span.), summit, peak.  
*Altura* (Span., Ital.), height, altitude.  
*Am* (Ger.), on the —.  
*An* (Ger.) near the —.  
*Angra* (Port.), bay.  
*Ano* (Gr.), superior, above.  
*Antiguo* (Span.), ancient.  
*Ar* (Welsh garw, violent, cf. Sans. *ara*, swift), a component of many river-names.  
*Ar* (Welsh), on, upon.  
*Aral* (Kirghiz), island.

*Ard* (Celt.), high.  
*Arl* (Ger.), eagle.  
*Arroyo* (Span.), stream.  
*Ath* (Er.), a ford.  
*Avá* (Slav.), river.  
*Avon* (Celt.), river, stream.  
*Ba* (Sudanese), river.  
*Bab* (Arab.), gate, entrance.  
*Bach* (Ger.), brook, rivulet.  
*Bach* (Turk.), head or summit.  
*Bach* (Welsh), little.  
*Bäck* (Swed.), *beck* (Norw.), stream, cf. *beck* and *beek*.  
*Bad* (Ger.), bath.  
*Bahia* (Port.), bay.  
*Bahr* (Arab.), river, lake, or sea.  
*Bajo* (Span.), lower, under.  
*Baka* (Mong.), great.  
*Bal*, *Bally* (Celt.), village, town.  
*Ban* (Celt.), place.  
*Ban* (Celt.), white.  
*Bar* (Hind.), country.  
*Bas* (Fr.), below, under.  
*Basar*, *bazar* (Turk.), market.  
*Batang* (Mal.), river.  
*Battle*, *bottle*, *büttel* (Teut.), dwelling.  
*Beau*, *bel* (Fr.), beautiful.  
*Bec* (Fr., cf. Eng., bill), beak, applied to headlands.  
*Beck* (Teut.), brook.  
*Bedd* (Welsh), grave.  
*Bedw* (Welsh), birch tree.  
*Beek* (Dutch), stream.  
*Beer* (Hebr.), a well.  
*Beg* (Celt.), little.  
*Bela* (Slav.), white.  
*Bello*, *bella* (Span., It., Port.), beautiful.  
*Ben* (Celt. and Er.), mountain, hill, headland, hilltop.

*Bender* (Pers.), port.  
*Beni* (Arab.), sons of —, clansmen.  
*Berg* (Ger.), a hill or mountain. In England the form is borough.  
*Berka* (Arab.), freshwater lake.  
*Beth* (Hebr.), a house.  
*Bettws* (Welsh), village.  
*Bialy* (Polish), white.  
*Bien* (Annam.), lake, sea.  
*Bihan* (Arm., cf. Welsh bychan), little.  
*Bilad* (Arab.), country.  
*Bir* (Arab.), well or fountain.  
*Blair* (Celt.), a plain (battlefield).  
*Blanc* (Fr.), white.  
*Bocca, bocche* (Ital.), *boca* (Span.), mouth.  
*Bocht* (Dutch), bay.  
*Boghas* (Turk.), defile, strait.  
*Bolchoi* (Russ.), great.  
*Borg* (Dan.), castle.  
*Borgo* (Ital.), town.  
*Borough* (Teut.), a town or fortified place.  
*Bosch* (Dutch), wood or forest.  
*Boulak* (Arab.), source.  
*Brig* (Scot.), bridge.  
*Brücke* (Ger.), bridge.  
*Brunnen* (Ger.), spring, well.  
*Bryn* (Welsh), hill.  
*Bucht* (Ger.), *bught* (Scand.), bay.  
*Buena* (Ital.), *buena* (Span.), good.  
*Burg, burgh, bury* (Teut.), originally meant a castle or fortified town.  
*Burn* (Eng.), a stream (other forms, bourn, bourne, &c.).  
*By* (Dan.), a dwelling.  
*Cabo* (Span., Port.), cape.  
*Cader* (Welsh), chair.  
*Caer, car* (Welsh), a fortified place.  
*Cairn* (Celt., modern Welsh, carnedd), a heap of stones placed over a grave, or as a memorial, on the summit of a hill or mountain.  
*Cam* (Celt.), crooked.  
*Cap* (Fr.), cape.  
*Capel* (Welsh), chapel.  
*Car*, see caer.  
*Carrick* (Celt.), crag.  
*Caster, chester, cester* (fr. Lat., castra), a camp.  
*Cayo* (Span.), island.  
*Cefn* (Celt.), a back, applied to mountain ridges.  
*Cerro* (Span.), mountain peak, hill.  
*Chai* (Turk.), river.  
*Chan* (Chin.), mountain.  
*Château, Châtel* (Fr.), a castle.  
*Cheap, chipping* (from A.-S. ceap), a price, and so applied to market-towns or places.

*Cidade* (Port.), a city.  
*Cima* (Span., Ital.), a peak.  
*Ciudad* (Span.), a city.  
*Civita* or *citta* (Ital., fr. the Lat., civitas), a city.  
*Clawdd* (Welsh), a wall.  
*Clyd* (Celt.), warm or sheltered.  
*Clyth* (Celt.), strong.  
*Coed, goed* (Welsh), a wood.  
*Col* (Fr.), *colle* (Ital.), a pass.  
*Coln* (from the Lat., colonia), a colony. (Ger., köln).  
*Combe* (A.-S., from Welsh, cwm), a rounded valley or hollow.  
*Cor, gor* (Welsh), a choir.  
*Cordillera* (Span.), a mountain range.  
*Costa* (Span.), coast.  
*Cot, cote* (A.-S.), a cottage.  
*Côte* (Fr.), coast.  
*Craig, carrick, crag* (Celt.), a rock.  
*Creek* (from A.-S. crecca, a crook, cf. Welsh, crwg, a hook), original meaning, a bend, and so came to denote a small inlet or bay of the sea, a river or lake, and, in Australia, temporary streams.  
*Croes, groes* (Welsh), a cross.  
*Cruz* (Span.), a cross.  
*Cumber* (Span.), mountain peak.  
*Cwm* (Welsh), a "hollow" on a hill side.  
*Czerna, czerny* (Slav.), black.  
*Dagh, tagh* (Turk.), a mountain or mountain range.  
*Dahra* (Arab.), north.  
*Dal* (Scand.), *dol* (Celt.), *thal* (Ger.), a plain or dale.  
*Dam* (Dutch), an embankment.  
*Dâr* (Arab.), country.  
*Daria* (Pers.), river, sea.  
*Davan* (Turk.), pass.  
*Deccan* (Hind.), the south country.  
*Den, dean, dene* (Teut.), a wooded valley.  
*Denghiz, deniz* (Turk.), lake.  
*Dent* (Fr.), a tooth.  
*Dera* (Hind.), an encampment or dwelling.  
*Derbend* (Pers.), castle, town.  
*Dere* (Turk.), defile or pass.  
*Dewi, ddewi* (Welsh), David.  
*Dhu* (Gael.), *du, adu* (Welsh), black.  
*Didi* (Georgian), great.  
*Dinas* (Welsh), a town.  
*Diva* (Hind.), island.  
*Doab, dooab* (Pers.), two rivers (cf. with Welsh, dwy avon, 'two rivers'), term applied to land between two rivers.  
*Dolina* (Slav.), a valley.

*Dolny* (Pol.), under.  
*Don* (Celt.), a wave.  
*Dong, dhang* (Burm.), mountain.  
*Dorf* (Ger.), a village.  
*Dour* (Celt.), water.  
*Draa* (Arab.), link.  
*Draeth* (Welsh), the beach.  
*Drom, drum* (Celt.), a ridge.  
*Dun, don* (Celt.), a hill-fortress or hill.  
*Dwr, drofr* (Welsh), water.  
*Dyffryn* (Welsh), a valley.  
*Dysart* (Celt., from the Lat., desertum), a hermitage, retreat.  
*Dwala* (Hind.), white.  
*Diu* (Hind.), an island.

*Ea, ey* (Scand.), an island (Norw. and Dan. form, *ø* or *oe*).  
*Eccles* (Fr. *église*, Lat. *ecclesia*, Gr. *ekklesia*), a church.  
*Eglwys* (Welsh), a church.  
*Eisen* (Ger.), iron.  
*El* (Arab.), the (changes into *ech*, *ed*, *en*, *er*, *es*, *et*, and *ez* before corresponding consonants).  
*Elf* (Swed.), river.  
*Ennis* (Erse), island (Welsh form, *ynys*)  
*Erdö* (Mag.), forest.  
*Esgob* (Welsh), bishop.  
*Esk* (Celt. uisge), water.  
*Eski* (Turk.), old.  
*Ey* (Scand.), island.

*Fach, fechan* (Welsh), little.  
*Fair, mair* (Welsh), Mary.  
*Falva, Falá* (Mag.), a village.  
*Fejér, fehér* (Mag.), white.  
*Feld* (Ger.), a field, plain.  
*Fell* (Scand., fjeld), a mountain.  
*Fels* (Ger.), rock.  
*Felsö* (Mag.), upper.  
*Ffynnon* (Welsh), a well.  
*Field* (Dan., Norw., fjeld; Swed., fjäll), mountain.  
*Fjord* (Norw., fjord; Swed., fjärd), a navigable inlet.  
*Firth* (Celt.), a bay or estuary.  
*Fleet* (Scand.), a "flood," a small river or channel.  
*Folk* (A.-S.), people.  
*Foo* (Chin.), a town. (The 'foo' is only added to the names of the capitals of the 18 great provinces of China).  
*Forêt* (Fr.), a forest.  
*Foss* (Scand.), a waterfall.  
*Frei* (Ger.), free.  
*Fuerte* (Span.), strong.  
*Fürst* (Ger.), a prince.

*Ganga* (Hind.), river.  
*Garh, gurh* (Hind.), a castle.

*Garth* (Scand.), a yard or enclosure.  
*Garw* (Celt.), rough.  
*Gate, gale* (Teut.), a passage or road.  
*Gawa* (Jap.), a river.  
*Gebirge* (Ger.), mountains.  
*Gelli* (Welsh), hazel.  
*Gharbi* (Arab.), west.  
*Ghat, ghaut* (Hind.), a stair, hence a landing-place or pass.  
*Giri or ghiri* (Hind.), mountain.  
*Glen* (Gael.), *glyn* (Welsh), a narrow valley.  
*Goed, coed* (Welsh), a wood.  
*Gol* (Mongol.), a river.  
*Gora* (Slav.), mountain or forest.  
*Gorm* (Gael.), blue.  
*Gorod, grad, grätz* (Slav.), an enclosure, a town.  
*Gouba* (Russ.), bay.  
*Gran, grande* (Span., Port., Ital.), great.  
*Grand, grande* (Fr.), great.  
*Grätz*, see *gorod*.  
*Groote* (Dutch), great.  
*Gross* (Ger.), great.  
*Guad, guadi* (Span. form of Arab., wady), a river.  
*Gunong* (Mal.), mountain.  
*Gwyn, see wy*,  
*Gwyn, gwen, wen* (Welsh), white.

*Hafen* (Ger.), *havn* (Dan.), harbour.  
*Hafod* (Welsh), a summer house.  
*Hai* (Chin.), sea.  
*Hall* (Teut.), a stone house.  
*Ham* (A.-S.), home.  
*Hamm* (Swed.), haven.  
*Hammada* (Arab.), rocky tableland.  
*Hamun* (Pers.), plain.  
*Haus, hausen* (fr. the Ger. *haus*), a house.  
*Hegy* (Mag.), mountain.  
*Heim* (Ger.), home.  
*Heli* (Welsh), salt.  
*Hên* (Welsh), old.  
*Hia* (Chin.), under.  
*Hien* (Chin.), town (capital of a canton or provincial division).  
*Hikui* (Jap.), lower.  
*Himalaya* (Hind.), abode of snow.  
*Hinte* (Ger.), behind (Hinterland, a term used in recent discussions to denote the land lying behind the coast strip).  
*Hisar* (Turk.), castle.  
*Hithe* (A.-S.), haven.  
*Hjem* (Norw. form of Germ. *heim* and Eng. *ham*), home.  
*Ho* (Annam.), lake.  
*Ho* (Chin.), river.  
*Hoang* (Chin.), yellow.  
*Hoch* (Ger.), high.  
*Hodna* (Arab.), a plain.

*Hoek* (Dutch), promontory.  
*Höhe* (Ger.), height.  
*Holm* (Scand.), "an island in a lake or river."  
*Holt* (Teut.), a wood.  
*Hoo* (Chin.), a lake.  
*Hoofd* (Dutch), a cape.  
*Horn* (Ger.), a peak.  
*Hoved* (Norw.), head or cape.  
*Hügel* (Ger.), a hill.  
*Huis* (Dutch), *huus* (Dan.), a house.  
*Hurst* (A.-S.), a wood.

*Jeni* (Turk.), new.  
*Ike* (Mong.), little.  
*Ile, isle* (Fr.), island.  
*Ilha* (Port.), island.  
*Inch* (Gael. form of Celt., ennis), an island.  
*Ing* (A.-S.), a patronymic or suffix, denoting son; in the plural, a family or tribe.  
*Innis* (Celt.), an island.  
*Insel* (Ger.), island.  
*Inver, inner* (Celt.), the mouth of a river.  
*Irmak* (Turk.), a river.  
*Is, isaf* (Welsh), lower, lowest.  
*Isla* (Span.), island.  
*Isola* (Ital.), island.

*Jebel* (Arab.), mountain.  
*Jeni* (Turk.), new.  
*Jezireh* (Arab.), island.  
*Joki* (Finn.), a river.  
*Jökull* (Ice), snow or ice-capped mountain, glacier.

*Kaf or kef* (Arab.), a peak.  
*Käfir* (Arab.), infidel, general name given to the Zulus and other Bantu tribes of South Africa.  
*Kaia* (Turk.), a rock.  
*Kale* (Turk.), castle.  
*Kali* (Mal.), river.  
*Kamen* (Slav.), a stone.  
*Kami* (Jap.), upper.  
*Kand* (Turk.), town.  
*Kap* (Ger.), cape.  
*Kara* (Turk.), black.  
*Kasr, kestr* (Arab.), a castle.  
*Kuta* (Jap.), lake.  
*Kato* (Gr.), lower.  
*Kava or gava* (Jap.), river.  
*Kawa* (Jap.), see *gawa*.  
*Kebir* (Arab.), great.  
*Ken* (Jap.), department.  
*Khöi* (Samoyede), stone, mountain.  
*Khrebet* (Russian), chain of mountains.  
*Kiang* (Chin.), *kang* (Corean), river.  
*Küll* (Celt.), a church or chapel.

*Kin, ken, can* (Celt.), head.  
*Kin* (Chin.), town.  
*Kio* (Jap.), town.  
*Kion* (Chin.), gate, mouth.  
*Kirche, kirchen* (Ger.), church, churches.  
*Kirk* (Scand.), a church.  
*Kis* (Mag.), little.  
*Kisil* (Turk.), red.  
*Klein* (Ger.), little.  
*Knock* (Celt.), a hill.  
*Ko* (Jap.), little.  
*Ko* (Siam.), island.  
*Koh* (Per.), mountain.  
*Kol* (Turk.), a lake.  
*Kon* (Jap.), harbour.  
*Kong* (Chin.), river.  
*König* (Ger.), king.  
*Köping* (Swed.), village.  
*Kopp or koppe* (Ger.), top, peak, summit.  
*Kosui* (Jap.), lake.  
*Krasnoi* (Russ.), pretty.  
*Ksar* (Arab.), fortified village.  
*Kuchuk* (Turk.), little.  
*Kuh*, see *koh*.  
*Kul* (Tart.), lake.  
*Kum* (Tart.), sand.  
*Kuro* (Jap.), black.  
*Küste* (Ger.), coast.

*La* (Hind.), pass.  
*Lac* (Fr.), *lago* (Ital., Span., Port.), lake.  
*Laguna* (Span., Ital.), lagoon.  
*Lande* (Fr.), steppe, plain.  
*Lax* (Scan.), *lachs* (Ger.), salmon.  
*Levante* (Ital.), east.  
*Ley, leigh* (A.-S., leah), a meadow.  
*Lieu* (Fr.), a place.  
*Lille* (Norw.), little.  
*Liman* (Russ.), a harbour.  
*Liman* (Turk.), a bay.  
*Lin, linn* (Celt.), *llyn* (Welsh), a pool or lake.  
*Ling* (Chin.), mountains, tableland.  
*Lis* (Celt.), a fort.  
*Liten* (Swed.), little.  
*Llan* (Welsh), a church.  
*Llano, llanura* (Span.), a plain.  
*Llyn, Uun* (Welsh), a lake.  
*Loch* (Celt.), a lake or arm of the sea.  
*Loma* (Span.), hill.  
*Loo* (Dutch), meadow.  
*Low, law* (A.-S., hlaw), an elevation, a hill.

*Ma* (Arab.), water.  
*Mäden* (Arab.), a mine.  
*Maen* (Welsh), a stone or rock.  
*Maes* (Welsh), a meadow.  
*Magh* (Celt.), a plain.  
*Maha* (Hind.), great.  
*Mala, maly* (Slav.), little.

*Mare* (Roum.), great.  
*Mark* (Teut. = Eng., march), a boundary.  
*Matt* (Teut.), a meadow.  
*Mauna* (Haw.), mountain.  
*Mawr* (Welsh), great.  
*Me* (Siam.), river.  
*Medina* (Arab.), town.  
*Meer, mere* (Teut.), sea or lake.  
*Mesa, meseta* (Span.), plateau.  
*Minato* (Jap.), port, harbour.  
*Minster* (Lat.), a monastery (Ger. form, *münster*).  
*Mo* (Chin.), sea.  
*Moel* (Welsh), bald, applied to rounded barren hills.  
*Moer* (Dutch), marsh.  
*Montana* (Span.), *monte* (It.), mountain.  
*Mor* (Celt.), *mawr* (Welsh), great.  
*Môr* (Welsh), the sea.  
*Morfa* (Welsh), a marsh or heath.  
*Mühl* (Ger.), mill.  
*Mull* (Gael.), a headland.  
*Mund, münde* (Ger.), mouth or estuary.  
*Mynydd* (Welsh), a mountain.  
  
*Nada* (Jap.), a bay.  
*Nadi* (Hind.), river.  
*Naga* (Jap.), long.  
*Nagy* (Mag.), great.  
*Nahr* (Arab.), river.  
*Nan* (Chin.), southern.  
*Nant* (Welsh), a valley.  
*Näs* (Scand.), nose, cape.  
*Neder* (Dutch), lower.  
*Nefud* (Arab.), a river of sand.  
*Negra* (Span., Port., Ital.), black.  
*Nehrung* (Ger.), a narrow tongue of land which forms a small bay.  
*Nejd* (Arab.), elevated country.  
*Ness* (Scand.), a nose or cape.  
*Neu* (Ger.), new.  
*Nevada* (Span.), snowy.  
*Nieder* (Ger.), under, lower.  
*Nijni* (Russ.), lower.  
*Nisi* (Gr.), island.  
*Nor* (Mong.), lake.  
*Norte* (Span.), north.  
*Nos* (Russ.), nose, cape.  
*Novoi, novaiia* (Russ.), new.  
*Nuevo, nueva* (Span.), *nuovo* (Ital.), new.  
*Nur* (Hind.), light.  
*Ny* (Swed.), new.  
  
*Ó* (Mag.), old.  
*Ó, oe* (Scand.), island.  
*Ober* (Ger.), upper.  
*Oglat* (Berber), a natural reservoir of water.

*Oho* (Jap.), great.  
*Ola, cola* (Mong.), mountain.  
*Oost* (Dutch), east.  
*Ost* (Ger.), *öster* (Scand.), east.  
*Ostrov* (Slav.), island.  
  
*Pampa* (Span.), grassy plain.  
*Para* (Hind.), village.  
*Pará* (Ind., S. America), river.  
*Patak* (Mag.), little.  
*Patam* (Sans.), city.  
*Pe* (Chin.), northern.  
*Pei* (Chin.), white.  
*Pen* (Celt.), a head, mountain.  
*Pena* (Span.), *penha* (Port.), a rock.  
*Pic* (Fr.), *pico* (Span.), peak.  
*Pied* (Fr.), a foot.  
*Pnom* (Annam.), mountain.  
*Polder* (Dutch), marshes drained and reclaimed.  
*Polis* (Gr.), a city.  
*Pont* (modern Fr. and Welsh, from Lat. *pontus*), a bridge.  
*Porto* (Port., Ital.), harbour.  
*Potamos* (Gr.), river.  
*Poor, pore, pur* (Sans., pura), a town.  
*Pueblo* (Span.), town.  
*Puerto* (Span.), port.  
*Pulo* (Mal.), an island.  
*Punta* (Span.), point.  
*Pur* (Sans.), a town.  
*Pushta* (Mag.), a steppe or plain.  
*Putra* (Hind.), a son.  
*Puy* (Celt. = Fr., pic), a peak.  
*Pwll, pool* (Celt.), a lake or inlet.  
  
*Quelle* (Ger.), source.  
  
*Rancho* (Span.), camping place.  
*Ras* (Arab.), cape.  
*Rath* (Celt.), an earthwork fort.  
*Reich* (Ger.), kingdom.  
*Rhaiadr* (Welsh), waterfall.  
*Ridge* (Eng.), *rigg* (Scot.), a back.  
*Río* (Span., Port., Ital.), river.  
*Riva* (Ital.), coast.  
*Ross* (Celt.), a promontory.  
*Roto* (Maori), lake.  
*Rud* (Pers.), river.  
  
*Sahara* (Arab.), desert.  
*Saki* (Jap.), cape.  
*Salz* (Ger.), salt.  
*San, santo, santa* (Span., Port., Ital.), *saint, sainte* (Fr.), saint or holy.  
*San* (Jap.), mountain.  
*Sasso* (Ital.), rock.  
*Scar* (Scand.), a cliff.  
*Schnee* (Ger.), snow.  
*Schwarz* (Ger.), black.  
*Sebkha* (Arab.), salt lake.

*See* (Ger.), lake.  
*Selva* (Span.), forest.  
*Serai* (Turk.), a palace.  
*Serra* (Port.), *sierra* (Span.), mountain chain.  
*Ser*, Saxon, e.g., Essex = East Saxons.  
*Sha* (Chin.), sand.  
*Shan* (Chin.), mountain.  
*Shar* (Samoyede), strait.  
*Shat* (Arab.), river.  
*Shehr* (Turk.), city.  
*Shott* (Arab.), lake.  
*Si* (Chin.), west.  
*Sidi* (Arab.), overlord.  
*Sierra* (Span.), mountain chain.  
*Sima* (Jap.), island.  
*Sk* (Slav.), town.  
*Sieve* (Erse), mountain.  
*Snee*, *snæ* (Scand.), snow.  
*Sneeuw* (Dutch), snow.  
*Song* (Annam.), river.  
*Sono* (Ital.), under.  
*Spitz* (Ger.), peak.  
*Stadt*, *stadt* (Teut.), a town.  
*Stan* (Pers.), a land.  
*Staple* (A.-S.), a store.  
*Stari* (Slav.), old.  
*Stor* (Scand.), great.  
*Strath* (Celt.), a broad valley.  
*Street* (from Lat., *stratum*), a road.  
*Su* (Turk.), river.  
*Sul* (Port.), south, southern.  
*Sumpf* (Ger.), marsh.  
*Sund* (Scand.), strait.  
*Sur* (Span.), south, of the south.  
*Syrt* (Tar.), plateau.  
*Szent* (Mag.), saint.  
  
*Ta*, *tai* (Chin.), great.  
*Tagh*, see *dagh*.  
*Tagh* (Turk.), stone.  
*Tai* (Jap.), great.  
*Take* or *dake* (Jap.), peak.  
*Tal* (Hind.), a lake.  
*Tala* or *dala* (Mong.), desert.  
*Tam* (Celt.), smooth.  
*Tan* (Turk.), mountain.  
*Tao* (Chin.), island.  
*Tara* (Maori), rock.  
*Tehama* (Arab.), lowland.  
*Tell* (Arab.), a hill.  
*Tepe* (Turk.), hill, summit.  
*Tepell* (Aztec), mountain.  
*Terra* (Port., Ital.), *tierra* (Span.), land.  
*Thal* (Ger.), valley, dale.  
*Thian* (Chin.), heaven.  
*Thorpe* (Scand.), a village.  
*Timor* (Mal.), east.  
*Tind* (Dan., Norw.), mountain peak.  
*Tizi* (Berber), a pass.

*Toft* (Scand.), an enclosure.  
*Tok* (Somali), river.  
*Ton* (A.-S.), town.  
*Tong* (Chin.), east.  
*Tor* (Celt.), a tower-like rock or hill.  
*Traeth*, see *draeth*.  
*Traws* (Welsh), across.  
*Tre*, *tref* (Welsh), a town.  
*Tri* (Gr.), three.  
*Tung*, see *tong*.  
*Ty* (Welsh), a house.  
  
*Ucha*, *ucho* (Welsh), higher.  
*Uchel* (Welsh), *uachtar* (Gael.), high, height.  
*Ula* (Manchu.), river.  
*Unter* (Ger.), under.  
  
*Vaart* (Dutch), canal.  
*Valle*, *val* (Span., Ital.), valley.  
*Van* (Jap.), bay.  
*Vand* (Norw.), lake.  
*Var*, *varad* (Mag.), fortified town.  
*Varos* (Mag.), town.  
*Vasar* (Mag.), market.  
*Vatn* (Norw.), lake.  
*Vecchio*, *vecchia* (Ital.), old.  
*Veld* (Dutch), field.  
*Felika* (Russ.), great.  
*Vesi* (Finn.), lake.  
*Viejo* (Span.), old.  
*Vik* (Icel.), bay.  
*Villa* (Ital., Span., Port.), *ville* (Fr.), town.  
*Vinh* (Annam.), gulf.  
*Visni* (Slav.), upper.  
*Vley* (Dutch), a pool.  
  
*Wadi* (Arab.), a river-valley.  
*Wai* (Maori), water.  
*Wald* (Ger.), *weald*, *wold* (Eng.), forest or wood.  
*Wasser* (Ger.), water.  
*Weiss* (Ger.), white.  
*Wick*, *wich* (A.-S.), a village, (Scand.), a bay.  
*Wold*, see *wald*.  
*Worth* (A.-S.), a farm or estate.  
*Wy*, *gwy* (Welsh), water.  
  
*Yama* (Jap.), mountain.  
*Yeni* (Turk.), new.  
*Ynys* (Welsh), see *ennis*.  
*Ystrad* (Welsh: corr. of Lat. *stratum*), a road.  
  
*Zab*, pl. *ziban* (Arab.), oasis, oases.  
*Zee* (Dutch), sea.  
*Zemlia* (Russ.), country, land.  
*Zuid* (Dutch), south.  
*Zwart* (Dutch), black.



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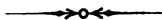
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